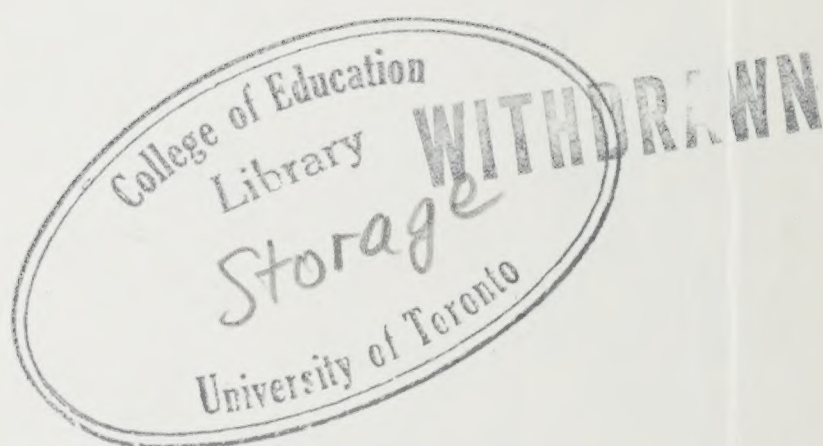
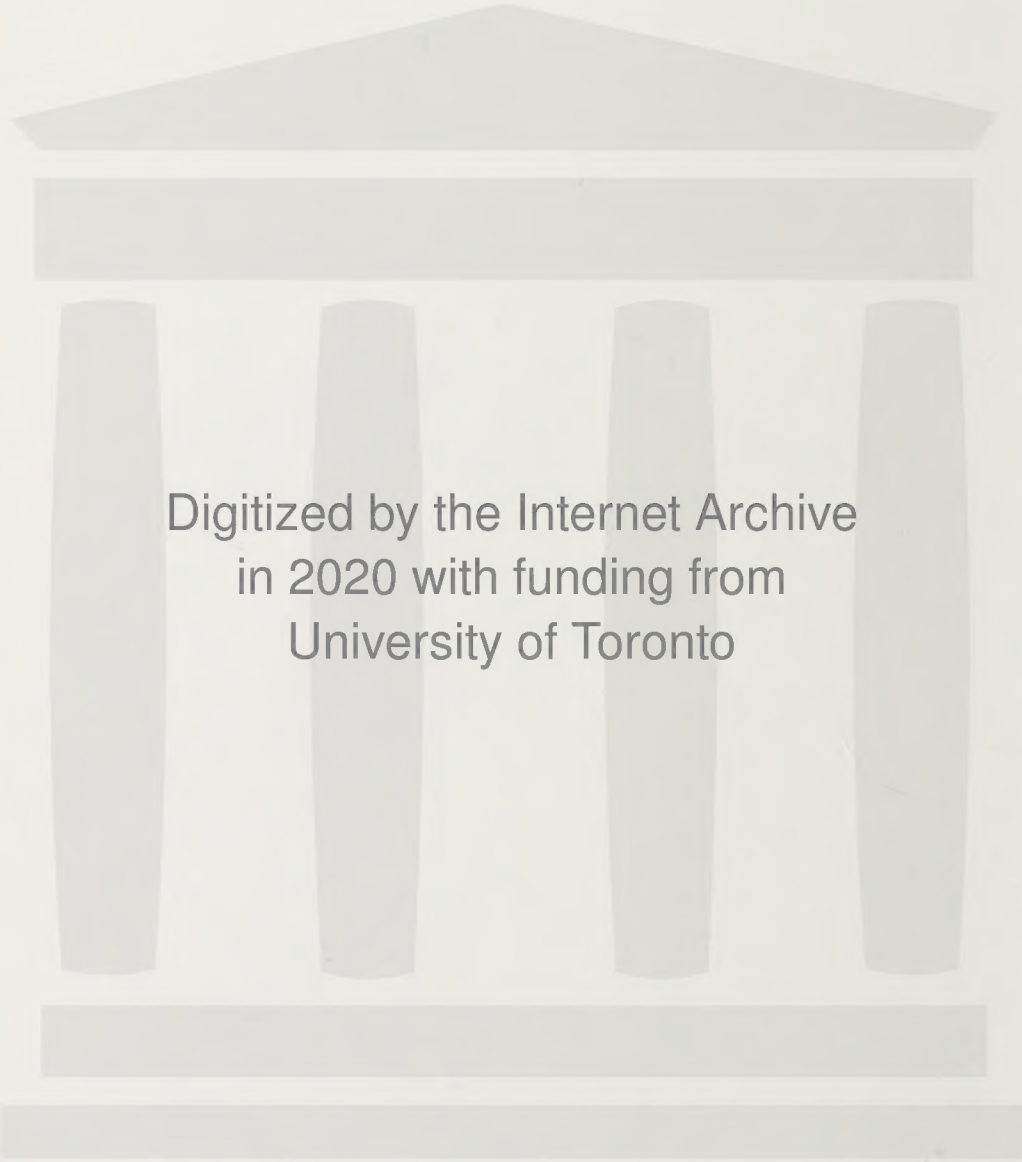


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Annual Examinations, 1907.

HIGH SCHOOL ENTRANCE.

COMPOSITION.

Examiners: { D. D. MOSHIER, B.A., B.PÆD.
S. J. RADCLIFFE, B.A.
D. WALKER, B.A.

Values

50

1. Write a composition of about thirty lines on not more than *one* of the following subjects:—

(a) Meeting the Train on a Holiday.

(b) An Outing for Wild Flowers.

(c) Evening on the Farm.

(d) A Journey on the Railway.

(e) A Game of Baseball.

(f) Empire Day.

(g) My Favorite Character in History.

(h) A Fair.

15 + 5

= 20

2. (a) Write a letter ordering the change of address of your newspaper.

(b) Write the envelope address on a space ruled the proper size.

30

3. Write a letter to a friend in England describing your place of residence and the climate of our province.

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HIGH SCHOOL ENTRANCE.

SPELLING.

Examiners: { D. D. MOSHIER, B.A., B.PÆD.
S. J. RADCLIFFE, B.A.
D. WALKER, B.A.

NOTE TO PRESIDING OFFICER.—Treat each sentence as follows :—(a) Read it aloud distinctly, to give the candidates the thought ; (b) read it again slowly for dictation, TAKING GREAT CARE TO MAKE EVERY CANDIDATE UNDERSTAND YOU ; (c) read it a third time for corrections, thus completing each sentence before proceeding to the next. Advise candidates not to write it all over again.

(Value 50. Two marks off for each error.)

1. An official despatch states that the capital of the island was destroyed by a huge tidal wave.
2. Forty soldiers and ninety tourists are in the military hospital.
3. The fire was caused by defective electric wiring.
4. The tea table was decorated with pale satin ribbon and trailing ferns.
5. Scarcity of tanning material has increased the price of leather.
6. An eastern biscuit firm offers a permanent position with good salary to a reliable salesman.
7. That wholesale butcher sold fourteen forequarters of veal yesterday.
8. It occurred to me that he might come the first Tuesday in April.
9. The children's library contains many excellent books of biography and travel.
10. At the beginning of the month the weather was very changeable.
11. Men sow oats, and women sew buttons on wearing apparel.
12. Put my grammar in the valise, for I must review the participles during the holidays.
13. She was a talented and lovable lady, full of tact and sensibility.
14. The father's intense anxiety injured his health permanently.
15. A tremendous storm of thunder and lightning shook the building.

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HIGH SCHOOL ENTRANCE.

GEOGRAPHY.

Examiners: { D. D. MOSHIER, B.A., B.PÆD.
S. J. RADCLIFFE, B.A.
D. WALKER, B.A.

Values

- | | |
|------------|---|
| 12 | 1. What is meant by the terms :—latitude, longitude, climate, isothermal lines, constellations, planets ? |
| 6+6
=12 | 2. Explain clearly what causes day and night, and account for the variations in their length. |
| 9+9
=18 | 3. Name, in order from west to east, the provinces of the Dominion of Canada, and mention two of the characteristic industries of each. |
| 5+5
=10 | 4. Mention five of the chief exports from Canada to Great Britain, and five of the chief imports to Canada from the United States. |
| 9+9
=18 | 5. Give the names of :—
(a) seven leading cities and five independent railway lines in Ontario ;
(b) nine political divisions of Asia and an important city in each. |
| 9+6
=15 | 6. (a) Write a note on Australia, describing its climate and surface features, and mentioning its leading industries.
(b) Mention four important routes for trade between Australia and Great Britain. |
| 15 | 7. Where and what is each of the following :—Montmorency, Moncton, Moscow, Duluth, Bahamas, Banff, Pyrenees, Antwerp, Orinoco, Vesuvius, Congo, Rossland, Aden, Geneva, Southampton ? |

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HIGH SCHOOL ENTRANCE.

ARITHMETIC.

Examiners: { D. D. MOSHIER, B.A., B.PÆD.
S. J. RADCLIFFE, B.A.
D. WALKER, B.A.

Values

- | | |
|---------------|---|
| 14 | 1. Divide the product of 9768 and 3784 by 296. |
| 8 + 6
= 14 | 2. Simplify :—
(a) $\left(\frac{2\frac{1}{4} - \frac{2}{3} \text{ of } 1\frac{5}{8}}{\frac{1}{5} \times 3\frac{1}{3} + \frac{1}{12} + \frac{5}{18}} \right) + \left(\frac{1\frac{1}{2}}{1\frac{1}{4}} \div \frac{3}{2\frac{1}{2}} \right)$
(b) $\frac{\cdot 04 \times 6\cdot 82 \times \cdot 03}{\cdot 08 \times 3\cdot 1}$ |
| 12 | 3. A contractor employs 38 men and 26 boys, who work respectively 10 hours and 8 hours a day during 5 days of the week, and for half that time on Saturday. If each man is paid 24 cents an hour and each boy 13 cents an hour, find the total wages paid in 52 weeks. |
| 12 | 4. A drover bought some cattle for \$3393, paying a uniform price per head. He sold part of them for \$2726, at \$47 per head, thereby gaining on those sold \$464. How many head of cattle did the drover buy? |
| 12 | 5. A grocer bought some oranges at the rate of 5 for 3 cents, and sold them at the rate of 4 for 3 cents. If his total gain was \$7·83, how many oranges were there? |
| 12 | 6. If a farm containing 189 acres, 96 sq. rods, 25 sq. yards, 4 sq. feet, is divided up into 19 fields of equal size, how many acres, square rods, etc., will there be in each field? |
| 12 | 7. At what rate per cent. per annum, simple interest, will \$264 amount to \$297 in $3\frac{3}{4}$ years? |
| 12 | 8. A house is insured at $21\frac{1}{5}\%$ to cover $\frac{5}{8}$ of its value. If the premium paid is \$15·40, what is the value of the house? |

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HIGH SCHOOL ENTRANCE.

READING (*WRITTEN*).

Examiners: { D. D. MOSHIER, B.A., B.PÆD.
S. J. RADCLIFFE, B.A.
D. WALKER, B.A.

Values

A.

The poetry of earth is never dead :
When all the birds are faint with the hot sun,
And hide in cooling trees, a voice will run
From hedge to hedge about the new-mown mead :

5 That is the grass-hopper's—he takes the lead
In summer luxury,—he has never done
With his delights, for, when tired out with fun,
He rests at ease beneath some pleasant weed.

The poetry of earth is ceasing never :

10 On a lone winter evening when the frost
Has wrought a silence, from the stove there shrills
The cricket's song, in warmth increasing ever,
And seems to one in drowsiness half lost,
The grasshopper's among some grassy hills.

4 + 3
+ 4 + 5
= 16

1. (a) Explain what the author means by the statement in the first line.

(b) What other line in the poem repeats the same idea?

(c) Why is the repetition at that particular place?

(d) What proofs does the author give of the statement in the first line?

2 × 5
= 10

2. Explain the following passages:—

(a) he takes the lead in summer luxury (lines 5-6);

(b) when the frost has wrought a silence (ll. 10-11);

(c) from the stove there shrills the cricket's song
(lines 11-12);

(d) in warmth increasing ever (line 12);

(e) in drowsiness half lost (line 13).

4 3. Account for the author's impression that the cricket's song is that of the grasshopper.

2 4. Point out an example of imperfect rhyme.

[OVER]

They grew in beauty side by side,
 They filled one home with glee ;
 Their graves are severed far and wide,
 By mount and stream and sea.

5 The same fond mother bent at night
 O'er each fair sleeping brow ;
 She had each folded flower in sight—
 Where are those dreamers now ?

10 One, 'midst the forests of the West,
 By a dark stream is laid—
 The Indian knows his place of rest,
 Far in the cedar-shade.

The sea, the blue lone sea, hath one—
 He lies where pearls lie deep ;
 15 *He* was the loved of all, yet none
 O'er his low bed may weep.

One sleeps where southern vines are drest
 Above the noble slain ;
 He wrapt his colors round his breast,
 20 On a blood-red field of Spain.

And one—o'er *her* the myrtle showers
 Its leaves, by soft winds fanned ;
 She faded 'midst Italian flowers—
 The last of that bright band.

25 And parted thus they rest, who played
 Beneath the same green tree ;
 Whose voices mingled as they prayed
 Around one parent knee !

30 They that with smiles lit up the hall,
 And cheered with song the hearth—
 Alas for love ! if *thou* wert all,
 And naught beyond, O Earth !

4 + 4
 = 8

5. (a) What is the subject of this poem ?
 (b) Show exactly where the author answers the
 question asked in line 8.

6

6. What were the occupations of the boys of this
 family ?

4

7. Show that the surroundings are appropriate for
 the one mentioned in the sixth stanza.

2 + 2 +
 2 + 2 +
 4 = 12

8. Show clearly the meaning of the following pas-
 sages :—

- (a) each folded flower (line 7) ;
- (b) southern vines are drest (line 17) ;
- (c) wrapt his colors round his breast (line 19) ;
- (d) and parted thus they rest (line 25) ;
- (e) Alas for love ! if *thou* wert all,
 And naught beyond, O Earth ! (lines 31-32).

Among my daily papers which I bestow on the public, there are some which are written with regularity and method, and others which run out into the wildness of those compositions which go by the name of Essays. As for the first, I have the whole scheme of the discourse in my mind before I set pen to paper. In the other kind of writing, it is sufficient that I have several thoughts on a subject, without troubling myself to range them in such order, that they may seem to grow out of one another, and be disposed under the proper heads. When I read an author of genius who writes without method, I fancy myself in a wood that abounds with a great many noble objects, rising among one another in the greatest confusion and disorder. When I read a methodical discourse, I am in a regular plantation, and can place myself in its several centres, so as to take a view of all the lines and walks that are struck from them. You may ramble in the one a whole day together and every moment discover something or other that is new to you ; but when you have done, you will find but a confused imperfect notion of the place : in the other, your eye commands the whole prospect, and gives you such an idea of it, as is not easily worn out of the memory.

- 2 9. State the subject of this paragraph.
- 10 10. Number the sentences and show clearly which sentences and parts of sentences refer to the first method of composition and which to the second.
- 4 11. What sentences and parts of sentences are in direct contrast with each other ?
- 5 12. Show how the word "wood" (line 11), and the words "regular plantation" (line 14), help to illustrate the contrast between the two methods of composition.
- 5 13. What advantage, as shown by the author, has one method of composition over the other ?

D.

- 12 14. Quote the last two stanzas of the poem entitled "Ye Mariners of England", beginning "Britannia needs no bulwark".

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HIGH SCHOOL ENTRANCE.

ENGLISH GRAMMAR.

Examiners: { D. D. MOSHIER, B.A., B.PÆD.
S. J. RADCLIFFE, B.A.
D. WALKER, B.A.

Values

- | | |
|--|--|
| 1×6
$+ \frac{1}{2} \times 4$
$+ 1 \times 6$
$= 14$ | 1. Write sentences using :—
(a) the words “weary” and “right” first as nouns, then as adjectives, then as verbs ;
(b) the words “on” and “down” first as adverbs, then as prepositions ;
(c) the words “before” and “since” first as adverbs, then as prepositions, then as conjunctions. |
| 1×10
$= 10$ | 2. Use the plural of each of the following nouns as the subject of a sentence :—spoonful, woman, deer, ox, knife, echo, solo, bill-of-fare, alley, baby. |
| 1×10
$= 10$ | 3. Construct sentences, using (a) the comparative, and (b) the superlative form of each of the following words :—bad, well, beautiful, little, firmly. |
| $2 + 5$
$= 7$ | 4. (a) Define relative pronoun.
(b) Write sentences using each of the following words as a relative pronoun :—who, which, that, what, as. |
| 1×7
$= 7$ | 5. Write four sentences without objects and three sentences with objects, using the past tense of the following verbs :—lie, lay, rise, sit, set, fall, fell. |
| 1×12
$= 12$ | 6. Write the principal parts of the following verbs :—see, write, begin, blow, burst, dive, drive, flee, go, be, eat, wake. |

[OVER]

Values

$$2 \times 5$$

$$= 10$$

7. Select the clauses in the following sentence and state the kind and the relation of each :—

The world will never ask who you are until the things which you have mastered have when you knew it not paved the way for an introduction.

$$1 \times 11$$

$$= 11$$

8. Parse in full each word of the following sentence :—

Oh, tell me, master, that he will be your trusted servant again.

$$3 + 4$$

$$+ 6 + 6$$

$$= 19$$

9. Analyze fully the following sentences :—

(a) Night, sable goddess, from her ebon throne
In rayless majesty now stretches forth
Her leaden sceptre, o'er a prostrate world.

(b) Our sweetest songs are those that tell of saddest thought.

(c) Had I but served my God with half the zeal
I served my king, He would not in mine age
Have left me naked to mine enemies.

(d) This tale, while I was yet a boy
Careless of books, yet having felt the power
Of Nature, by the gentle agency
Of natural objects led me on to think
On man, the heart of man, and human life.

Education Department, Ontario.

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HIGH SCHOOL ENTRANCE.

WRITING.

Examiners: { D. D. MOSHIER, B.A., B.PÆD.
S. J. RADCLIFFE, B.A.
D. WALKER, B.A.

Values

18 1. Write:—

America, Bolivia, Canton, Dumfries, England, Fingal, Georgia, Hamilton, Ireland, Jackson, Kintore, Leeds, Mediterranean, Nottingham, Oporto, Philadelphia, Queenston, Rotterdam, Stratford, Toronto, Ural, Volga, Worcester, Xanthippus, Yokohama, Zurich.

17 2. Write:—

Come away, away children ;
Come, children, come down !
The hoarse winds blow colder ;
Lights shine in the town.
She will start from her slumber
When guests shake the door ;
She will hear the winds howling,
Will hear the winds roar.
We shall see, while above us
The waves roar and whirl,
A ceiling of amber,
A pavement of pearl.
Singing : "Here came a mortal,
But faithless was she !
And alone dwell forever
The kings of the sea."

5 3. Write your name in full and your P.O. address.

10 4. Write twice across your paper, a continuous, oval freehand movement, at least twice as high as an ordinary capital letter.

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HIGH SCHOOL ENTRANCE.

READING (ORAL).

Examiners: { D. D. MOSHIER, B.A., B.PÆD.
S. J. RADCLIFFE, B.A.
D. WALKER, B.A.

In the examination in reading, the examiners will use one or more of the following passages, paying special attention to pronunciation, emphasis, inflection and pause. They may also satisfy themselves, by an examination on the meaning of the reading selection, that the candidate reads intelligently as well as intelligibly. Twenty lines, at least, should be read by each candidate.

Candidates may elect to read from either the Ontario Readers or the Canadian Catholic Readers.

(Value=50.)

SELECTIONS.

Ontario Readers:—

- Death of Little Nell (p. 100).
- The Gulf Stream (p. 131).
- The Three Fishers (p. 220).
- Edinburgh After Flodden (p. 277).

Canadian Catholic Readers:—

- The Journey to Bethlehem (p. 175).
- The Escape of Queen Mary from Lochleven Castle (p. 102).
- Abou Ben Adhem and the Angel (p. 51).
- The Heritage (p. 150).

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DISTRICT CERTIFICATE.

HISTORY.

Examiners: { N. W. CAMPBELL.
J. B. McDOUGALL, B.A.

1. "Rarely, if ever, does Britain coerce her subject peoples. . . . Since the American Revolution her aim has been to give her colonies as great a measure of self-government as their loyalty, intelligence and general circumstances warrant."

(a) Outline the chief events leading to the American Revolution as far as the Declaration of Independence (1776).

(b) Name *two* self-governing colonies; also *two* partially so, and state what conditions do not warrant the giving of full self-government to the latter.

2. State briefly what part each of the following persons played in the making of Britain and the Empire:—Lord Nelson, Lord Wellington, Earl Roberts, Lord Clive, Captain Cook, General Wolfe.

3. Describe fully *one* of the following:—

(a) The Rebellion of 1837;

(b) The Crimean War.

4. Write explanatory notes on any *five* of the following:—Party Government, Foreign Policy, Premier, Treaty, Free Trade, National Debt, Union Jack, U. E. Loyalists.

5. Treaties of Utrecht (1713), Paris (1763), Versailles (1783):

(a) What war did each of these treaties close?

(b) What territory was gained or lost to Britain in each case?

6. Explain the terms in *either* (a) or (b):—

(a) Bill, Motion, Amendment, Dissolution, Adjournment.

(b) Election, Returning Officer, Ballot, Property Qualification, Re-count.

7. (a) Draw a map of Ontario and indicate the position of each of the following:—Fort Frontenac, Chrysler's Farm, Ridgeway, Navy Island, Queenston Heights, Fort York, Moraviantown.

(b) What historic interest attaches to each?

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DISTRICT CERTIFICATE.

GEOGRAPHY.

Examiners: { I. DAY, B.A.
J. B. McDougall, B.A.

1. Give a description of British Columbia, under the following heads :—climate, physical features, products.

2. Account for the following :—

(a) Variation in length of day and night ;

(b) The seasons ;

(c) The phases of the moon.

3. Define :—latitude, longitude, trade winds, cyclones, tornadoes, eclipse.

4. Draw a map of the Dominion of Canada, as large as your paper will permit, and on it locate the chief rivers (boundary waters included), the chief lakes, the mineral areas, and the agricultural sections.

5. Explain the origin of stratified rocks, unstratified rocks, limestone rocks.

6. Tell what you can about rivers, under the following heads : origin, growth, industrial value.

7. Enumerate and explain the conditions that modify the commercial relations between different countries. Illustrate by examples.

8. What are the agents that make changes in the form of the land ? How does each work ?

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DISTRICT CERTIFICATE.

ARITHMETIC AND MENSURATION.

Examiners: { I. DAY, B.A.
J. E. TOM.

1. (a) Define:—factor, prime factors of a number, common multiple, discount, complex fraction.

(b) The L.C.M. of 391 and another number is 12121, and their H.C.F. is 23; find the other number.

2. (a) Simplify $\left(\frac{2\frac{1}{4} - \frac{2}{3} \text{ of } 1\frac{5}{6}}{\frac{1}{5} \text{ of } 3\frac{1}{3} + \frac{1}{8} \frac{3}{8}} - \frac{3}{7\frac{1}{2}} \right) \div \left(\frac{2}{3\frac{1}{3}} \times 4\frac{1}{5} \right) + 1\frac{3}{4}.$

(b) Find the difference between

$$\frac{\cdot 26 + \cdot 2 \text{ of } 3\cdot 7}{\cdot 48 - \cdot 014 \text{ of } 20} \text{ and } \frac{4\cdot 3 + 5\cdot 6}{7\cdot 4 - \cdot 2 \text{ of } 11}.$$

3. Find the cost of painting the walls of a room 21 ft. 6 in. by 17 ft. 3 in., and 10 ft. high, having two windows, each 7 ft. by 4 ft., and one door 7 ft. by 3 ft., at the rate of 60 cents a square yard.

4. A man invests \$4,875 in 3 per cents, at $97\frac{1}{2}$; he afterwards sells out at 99 and re-invests the money in railway shares at 110 paying a 4% dividend. Find the change in his income.

5. Find the area of each of the following:—

(a) A triangular field whose sides are 52 rods, 56 rods and 60 rods.

(b) A walk 6 feet wide around a circular pond whose diameter is 30 feet.

(c) The curved surface of a cylinder whose height is 9 feet and the diameter of the base 7 feet.

(Circumference = $3\frac{1}{7}$ times the diameter.)

6. What is the compound interest on \$720 for 3 years, at 6 per cent. per annum, payable half-yearly?

[OVER]

7. Find the proceeds of the following note:—

\$1,200.00.

Baden, February 3, 1907.

Five months after date, I promise to pay to John King, or order, the sum of twelve hundred dollars with interest at six per cent. per annum. Value received. Moses Klein.

Discounted at Bank of Commerce, May 22, 1907, at 7%.

(Year = 365 days.)

8. A house was insured for 3 years by paying a premium of \$72. The rate was $\frac{1}{2}\%$ a year. Find the value of the house, $\frac{3}{4}$ of its value being insured.

6400

Note 1200

Int. 153 days 30 18

1230.18

Int. 45 days 10.60

1219.58

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DISTRICT CERTIFICATE.

ENGLISH GRAMMAR.

Examiners : { N. W. CAMPBELL.
J. B. McDOUGALL, B.A.

1. "In our schoolbooks we say,
Of those *that* held their heads above the crowd,
They flourished then or then ; but life in him
Could scarce be said *to flourish*, only *touch'd*
On such a time *as* goes before the leaf,
When all the wood stands in a mist of green,
And nothing *perfect*."

(a) Write in full each dependent clause in this extract and give the kind and relation of each.

(b) Write, and give the kind and relation of three phrases in the extract.

(c) Parse the italicized words (five in all).

2. "When I was first honoured with a call into the service of my country, then on the eve of an arduous struggle for its liberties, the light in which I contemplated my duty required that I should renounce every pecuniary compensation."

(a) Give a detailed analysis of this sentence.

(b) Indicate in it the words of Latin origin.

(c) Give the force (or meaning) of each prefix, root and suffix in :—honoured, contemplated, liberties, pecuniary, compensation.

3. (a) Define :—complex sentence, adjective clause, participial phrase, adverbial clause.

(b) Write a single complex sentence which shall contain an adjective clause modifying the subject, a participial phrase modifying the object, and an adverbial clause modifying the predicate.

(c) Define :—compound subject, passive verb phrase, adverbial phrase.

(d) Write a simple sentence having a compound subject and a passive verb phrase modified by an adverbial phrase.

[OVER]

4. Classify the verbs (or verb phrases) in the following sentences (a) as weak or strong, (b) as transitive or intransitive, (c) as active or passive:—

The work will be done tomorrow.

Flowers bloom early in the Spring.

Set the table before you sit down.

The bird flew over the river just where it flows over the falls.

He laid aside his book and lay full length upon the grass.

5. Distinguish between:—

I shall give *and* I will give.

I should give *and* I ought to give.

The King's picture *and* The picture of the king.

A tear at least is due to the unhappy *and* A tear is due to the unhappy at least.

The Lord's day *and* The day of the Lord.

6. Give the principal parts of each verb in the last three sentences of question 4 above.

7. Write in full the future active and present perfect passive tenses of:—find, throw, dare, teach, see.

8. Rewrite the following in improved form when necessary, giving reasons for any changes made:—

(a) Sailing up the river the whole town may be seen.

(b) Hoping that I may soon hear from you, believe me, yours truly.

(c) I never have nor never will forget it.

(d) He I must punish but she I will forgive.

(e) He hadn't ought to act so.

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DISTRICT CERTIFICATE.

ALGEBRA.

Examiners: { J. B. McDOUGALL, B.A.
J. E. TOM.

1. Simplify:—

(a) $1 - \{1 - (1 - x)\} + 1 + \{1 - (1 + x)\} + x - \{x - (x - 1)\}.$

(b) $2[4x - \{2y + (2x - y) - (x + y)\}] - 2(-x - \overline{y - x}).$

2. Divide:—

(a) $27x^6y + 6x^2y^5 - 18x^5y^2 - 6x^3y^4 - 6xy^6 - 3y^7$
by $3x^4 + x^2y^2 + y^4.$

(b) $(a + b)^2 + 3(a + b)c + 2c^2$ by $a + b + c.$

3. Factor:—

(a) $a^2x - aby + 2ax - 2by;$

(b) $2a^2 + 3a + 1;$

(c) $x^4 - 18x^2y^2 + y^4;$

(d) $a^6 - b^6;$

(e) $c^2 - a^2 - b^2 + 2ab.$

4. Find the value of:—

(a) $\frac{1}{z(z-1)} + \frac{1}{z(z+1)} - \frac{2}{z^2-1}.$

(b) $\left(\frac{1}{a+b} + \frac{1}{a-b}\right) \div \frac{c^2}{a^2-b^2}.$

5. Find:—

(a) H. C. F. of $x^3 - x^2 - 2x + 2$ and $x^4 - 3x^3 + 2x^2 + x - 1.$

(b) L. C. M. of $a^2 - 1, a^2 - 2a - 3, a^3 - 7a^2 + 6a.$

(c) Square root of $a^6 + 4a^5 + 2a^4 + 9a^2 - 4a + 4.$

[OVER]

6. Solve :—

$$(a) \quad 5x - [3x + 6 - (2x - 11)] = 6x + 11 - \{2x - 3 - (15 - 2x)\}.$$

$$(b) \quad \frac{x-6}{4} - \frac{x-4}{6} = 1 - \frac{x}{10}.$$

$$(c) \quad \frac{x+y}{3} = x-7,$$

$$\frac{x}{3} = y+1.$$

7. A father is now 24 years older than his son : in 7 years the son's age will be $\frac{2}{5}$ of the father's age. What are their ages at present ?

8. A man is able to pay his creditors 25 cents on the dollar ; but if his assets were 5 times as much and his debts $\frac{2}{3}$ of what they are, he would have a balance of \$1400. How much does he owe ?

Education Department, Ontario.

Annual Examinations, 1907.

DISTRICT CERTIFICATE.

COMPOSITION.

Examiners: { I. DAY, B.A.
J. E. TOM.

Write a composition of about sixty lines on any *one* of the following subjects :—

- (a) The Russo-Japanese War.
- (b) The Life of a Public School Teacher.
- (c) “Enoch Arden”.
- (d) A Hunt in the Woods without a Gun.
- (e) The Recent Earthquake at Jamaica.
- (f) “All experience is an arch wherethro’
Gleams that untravell’d world, whose margin fades
For ever and for ever as I move.”

Education Department, Ontario.

Annual Examinations, 1907.

DISTRICT CERTIFICATE.

GEOMETRY.

Examiners: { J. B. McDougall, B.A.
J. E. Tom.

NOTE.—The following instruments are essential :—(1) a *Ruler* on which are marked inches divided into sixteenths ; (2) a *Pair of Compasses* ; (3) a *Protractor*. All lines and angles must be drawn with exactness.

1. (a) Define :—parallel straight lines, rectangle, trapezium.
(b) Explain the terms :—axiom, problem, hypothesis.

2. If the three sides of one triangle be respectively equal to the three sides of another triangle, the triangles are equal in every respect.

On a diagonal AC , three inches in length, construct a rhombus $ABCD$ with sides $2\frac{1}{4}$ inches in length. Show that AC bisects the angles A and C .

3. To bisect a given angle.

Construct angles of 25° , 58° , 150° , and bisect them by the method of this proposition.

4. Construct a square which shall contain $12\frac{1}{4}$ square inches.

5. On a given straight line to describe a parallelogram equal to a given triangle and having an angle equal to a given angle.

6. The greater angle of any triangle has the greater side opposite it.

7. Triangles equal in area, and on the same base, are between the same parallels.

8. Show that the diagonals of a parallelogram bisect each other.

Education Department, Ontario.

Annual Examinations, 1907.

DISTRICT CERTIFICATE.

ENGLISH LITERATURE.

Examiners: { N. W. CAMPBELL.
I. DAY, B.A.

1. “‘Courage!’ he said, and pointed toward the land,
‘This mounting wave will roll us shoreward soon.’
In the afternoon they came unto a land
In which it seemed always afternoon.
5 All round the coast the languid air did swoon,
Breathing like one that hath a weary dream.
Full-faced above the valley stood the moon;
And like a downward smoke, the slender stream
Along the cliff to fall and pause and fall did seem.
10 A land of streams! some, like a downward smoke,
Slow-dropping veils of thinnest lawn, did go;
And some thro’ warring lights and shadows broke,
Rolling a slumbrous sheet of foam below.
They saw the gleaming river seaward flow
15 From the inner land: far off, three mountain-tops,
Three silent pinnacles of aged snow,
Stood sunset-flush’d; and, dew’d with showery drops,
Up-clomb the shadowy pine above the woven copse.”

(a) “‘Courage!’ he said” (l. 1). Who is supposed to be speaking? What are the supposed circumstances under which the speaker is acting? What is the chief purpose of the poem?

(b) What is the general mental effect of lines 3-18? Show how the poet heightens this effect in lines 4, 9, 11 and 13, respectively.

(c) “Like a downward smoke” (l. 8 and l. 10). Show how far in each case the comparison is true to nature. What figure of speech is here used?

(d) Explain as accurately as you can the meaning and the appropriateness of:— “mounting wave” (l. 2), “languid air” and “swoon” (l. 5), “breathing” (l. 6), “slow-dropping veils of thinnest lawn did go” (l. 11), “warring lights” (l. 12), “slumbrous sheet of foam” (l. 13), “aged snow” (l. 16), “sunset-flush’d” (l. 17), “up-clomb” and “woven copse” (l. 18).

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2. Write briefly the story of *Enoch Arden*, introducing quotations where possible. The following are suggested as paragraph topics:—

- (a) Early life of Enoch, Philip and Annie;
- (b) The married life of Enoch and Annie;
- (c) Enoch's life away from home;
- (d) Annie's life at home;
- (e) The married life of Philip and Annie;
- (f) The return and last days of Enoch.

3. “Dear as remembered kisses after death,
And sweet as those by hopeless fancy feign'd
On lips that are for others; deep as love,
Deep as first love, and wild with all regret;
Oh Death in Life, the days that are no more.”

(a) Give a brief outline of the poem from which this stanza is taken, and show the propriety of the title which is attached to it.

(b) Explain the stanza so as to bring out fully the appropriateness of each of the comparisons made.

4. From what poem is each of the following extracts taken? Explain each extract in relation to its context:—

- (a) Our echoes roll from soul to soul
And grow forever and forever.
- (b) For tho' the Giant ages heave the hill
And break the shore, and evermore
Make and Break, and work their will:
What know we greater than the soul?
- (c) Who dabbling in the fount of fictive tears,
And nursed by mealy-mouth'd philanthropies,
Divorce the Feeling from her mate the Deed.
- (d) Stormed at with shot and shell,
Boldly they rode and well,
Into the jaws of Death,
Into the mouth of Hell.
- (e) We may hold converse with all forms
Of the many sided mind,
And those whom passion hath not blinded,
Subtle-thoughted, myriad-minded.

5. (a) What sympathies of the poet are revealed in *Love Thy Land* and in *You Ask Me Why*?

(b) Give reasons and, where you can, quotations in support of your answer to (a).

(c) From these poems, what do you think was Tennyson's estimate of a true patriot?

6. Explain the italicized parts of each of the following :—

- (a) *I am a part of all that I have met ;*
Yet all experience is an arch wherethro'
Gleams that untravelled world, whose margin fades
For ever and for ever when I move.
- (b) Round afrighted Lisbon drew
The treble-works, the vast designs,
Of his labour'd rampart-lines,
Where he greatly stood at bay.
- (c) I murmur under moon and stars
In brambly wildernesses ;
I linger by my shingly bars ;
I loiter round my cresses.
- (d) Thy voice is heard thro' rolling drums,
That beat to battle where he stands ;
Thy face across his fancy comes,
And gives the battle to his hands.
- (e) Nor toil for title, place, or touch
Of pension, neither count on praise :
It grows to guerdon after-days :
Nor deal in watch-words overmuch.

7. Quote :—

(a) any two of the “Interlude songs” from *The Princess*,

OR,

(b) any two passages of not less than *ten lines* each from
the prescribed poems which you consider especially
worthy of remembrance.

Education Department, Ontario.

Annual Examinations, 1907.

DISTRICT CERTIFICATE.

Dictation.

Examiners: { N. W. CAMPBELL.
I. DAY, B.A.

NOTE.—The Presiding Officer shall read section A three times—the first time to enable the candidate to grasp the sense; the second, slowly, to enable the candidate to write the words; the third, for review. For section B only two readings are required—the first, for writing; the second, for review.

In section A two marks are to be deducted for each misspelt word; in section B, each word spelled correctly is to be valued at two marks. Where the number of marks to be deducted from the value of a section exceeds the number of marks assigned to that section, the excess is not to be charged against another section.

A.

When I had thrown me down on an Alpine summit, and looked forth on the clusterings of the grand and the lovely, canopied with an azure that was full of glory, a hope that my Creator loved me, might be gathered from scenery teeming with impresses of kindness, and apparently sending out from waving forests, and gushing fountains, and smiling villages, the anthem of an acknowledgment that God is infinitely beneficent; yet, if on a sudden, there passed around me the rushings of the hurricane, and there came up from the valley the shrieks of an affrighted peasantry, and the torrents went down in their strength, sweeping away the labour of man's hands, and the corn and the wood which had crowned the field as a diadem; oh, the confidence which had been given me by an exhibition which appeared eloquent of the benevolence of the Godhead, would yield to horror and trepidation whilst the Eternal One seemed walking before me, the tempest His voice and the lightning His glance, and a fierce devastation in His every footprint.

B.

sentimentality,	chivalrous,	spectacle,	institutions,
admittedly,	intimately,	prophecy,	controversy,
diphtheria,	judicature,	expository,	opulence,
subterranean,	vegetate,	telescope,	grammarian,
indispensable,	transcendent,	susceptible,	munificence,
business,	independent,	nominative,	hygiene.

Département de l'Éducation, Ontario.

EXAMENS ANNUELS, 1907.

Certificats d'Ecoles Bilingues.

COMPOSITION FRANÇAISE.

1. Qu'entendez-vous par :

- (a) la pureté (y compris l'anglicisme),
- (b) la clarté et
- (c) la précision dans une phrase ?

2. Indiquez clairement le défaut (ou les défauts) contre ces qualités dans chacune des phrases suivantes ; et, en résumé, récrivez chaque phrase de manière à la rendre strictement conforme à ces qualités du style.

- (a) Il faut que je te dise qu'il faut que tu étudies.
- (b) Le député-ministre fera un speech ce soir au town-hall.
- (c) Fabien promet à son frère de n'abandonner jamais ses amis.
- (d) C'est l'homme qui a été doué du don de la parole seul.
- (e) Dévoré par la faim, son dîné fut avalé avec avidité.

3. Rendez par un seul mot le sens de chacune des expressions :

- (a) cesser de paraître ; (b) qui n'est pas moral ; (c) qu'on ne peut pas lire ; (d) disposer d'avance ; (e) bâtir une seconde fois ; (f) tirer une ligne sous (un mot) ; (g) qui est au-delà de l'Atlantique ; (h) une très petite partie ; (i) un petit orme ; (j) passer de cette vie dans l'autre.

3. Rendez en bon français :

A cat and a monkey were sitting one day by the hearth (âtre, foyer), watching some chestnuts (châtaignes, marrons) which their master had laid down to roast.

When the chestnuts had begun to burst with the heat, the monkey said to the cat : " It is plain that your paws were made to pull out the chestnuts : your paws are, indeed, exactly like our master's hands."

The cat was greatly flattered by this speech, and reached forward for the tempting chestnuts. Scarcely had she touched

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the hot ashes than she drew back with a cry, for she had burned her paw.

She tried again, and made out to get one chestnut. Then she pulled another and a third, though each time she singed the hair on her paws.

When she could pull no more, she turned, and found the monkey had taken this time to crack the chestnuts and eat them.

Département de l'Éducation, Ontario.

EXAMENS ANNUELS, 1907.

Certificats d'Ecoles Bilingues.

GRAMMAIRE FRANÇAISE.

1. Ecrivez convenablement au pluriel :

aïeul ; bail ; vice-président ; abat-jour ; un jeu d'enfant ; ce fruit a l'air mûr ; cet homme a l'air haletant ; ce nouvel habit a coûté cher ; c'est toi qui m'écoutes ; je veux que tu le pries de venir me voir ; l'honneur que j'ai reçu, c'est mon talent (au pluriel) qui me l'a valu.

2. Pourquoi met-on :

- (a) un accent circonflexe (i) sur l'a des mots âme, pâte ?
- (ii) sur l'u de l'adjectif sûr, sûre, et du participe dû, dûe ?
- (b) un tréma sur l'i de aïeul, et sur l'e de aiguë, etc. ?

3. Comment forme-t-on la voix passive d'un verbe ?

Citez une phrase renfermant un verbe à la voix passive, et dites si ce verbe est transitif ou intransitif.

4. (a) Qu'appelle-t-on verbe impersonnel ou unipersonnel ?

(b) Conjuguez grêler au passé défini de l'indicatif et à l'imparfait du subjonctif.

5. Certains verbes, comme accourir, apparaître, partir, rester, etc., se conjuguent tantôt avec l'auxiliaire avoir, tantôt avec l'auxiliaire être.

Quand faut-il les employer avec avoir ? et quand avec être ? Citez des phrases illustratives.

6. Dans quels cas vingt et cent prennent-ils la marque du pluriel ? Dans quels cas ne la prennent-ils pas ? Citez des phrases illustratives.

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7. Dans les phrases suivantes faites accorder conformément aux règles de la grammaire, les mots mis entre parenthèses ; avec chaque correction citez la règle d'accord.

- (a) C'est toi, mon cher ami, toi seul qui (a compris) ma douleur.
- (b) Mon frère et toi (partira) demain.
- (c) C'est une maison que j'ai (laissé) tomber en ruines.
- (d) Ce sont des personnes que j'ai (vu) secourir.
- (e) (Battu) par la tempête, ces vaisseaux ont (échoué) sur des récifs où ils se sont (brisé).
- (f) Le peu de résultats que nous avons (obtenu) nous (a découragé).

8. (a) Qu'entend-on par :

proposition principale ? proposition subordonnée (ou dépendante) ?

(b) Combien y a-t-il de sortes de propositions subordonnées et comment les reconnaît-on ?

(c) Citez des phrases qui illustrent trois sortes de propositions subordonnées ; soulignez chaque proposition subordonnée, et indiquez en l'espèce et la fonction.

9. Faites l'analyse logique complète de la phrase ci-dessous :

Ce fantôme de l'Asie, qui avait conduit Colomb au bord de l'Amérique, s'interposait maintenant entre l'Amérique et lui pour lui dérober par une chimère la grande réalité.

Education Department, Ontario.

Annual Examinations, 1907.

PART II. JUNIOR TEACHERS.

HISTORY.

Examiners: { A. R. BAIN, M.A.
W. S. W. McLAY, M.A.
M. W. WALLACE, PH.D.

NOTE.—*Candidates will take Section A and any two questions of Section B.*

A.

1. Give the causes of the outbreak, in 1793, of war between France and England; and recount the principal naval operations of England in that contest to October, 1805.

2. During the reigns of George III. and George IV., what were the chief improvements made in:—

- (a) Criminal law;
- (b) Prison life;
- (c) Manufacturing industries?

3. Write historical notes on:—

- (a) The United Empire Loyalists;
- (b) The Constitutional Act, 1791;
- (c) The Act of Union, 1840. •

4. What caused the downfall of:—

- (a) The Macdonald Ministry, 1873;
- (b) The Mackenzie Ministry, 1878?

5. Trace the development of Athens from a kingdom to the democracy of the Age of Pericles.

6. Describe the formation and purpose of the Second Triumvirate, and state briefly the subsequent fortunes of each of its members.

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B.

7. Write notes on :—

- (a) Socrates ;
- (b) Lysander ;
- (c) The Peace of Nicias ;
- (d) The Conference of Corinth, 481 B.C.

8. Write notes on the comitia centuriata, dictator, and censor.

9. Where, and for what noted, is each of the following :—
Brest, Corunna, Van Diemen's Land, Auckland, Inkerman,
Khartoum, Wolfe's Cove, Chrysler's Farm ?

10. Indicate the position of each of the following, and mention
some important historical event associated with it :— Allia,
Cannae, Rubicon, Mylae, Numantia, Leuctra, Amphipolis,
Salamis, Arbela, Olympia.

Education Department, Ontario.

Annual Examinations, 1907.

PART II. JUNIOR TEACHERS.

GEOGRAPHY.

Examiners: { C. A. CHANT, PH.D.
F. B. KENRICK, PH.D.
W. H. PIERSOL, B.A.

1. (a) Describe how inequalities of the surface of the earth may have been produced.

(b) Describe briefly the modes of action of the various agents that tend to reduce the inequalities of the earth's surface.

2. Describe the climate of Canada (i) in its eastern parts, (ii) in its central parts, (iii) west of the Rocky Mountains.

3. (a) Account for the regular rise and fall in the level of the ocean that we know as tides.

(b) Why should the rise and fall at one point on the coast be greater than at another?

(c) What is meant by "spring tides" and "neap tides"? What causes the difference between them?

4. (a) What are the distinguishing characteristics of the four divisions of mankind—Mongolian, Caucasian, Negro, American?

(b) What are the chief portions of the earth over which each division is distributed?

5. Explain how the position and movements of the earth in reference to the sun cause:—

(a) the seasons of the year;

(b) the change in the relative length of day and night in the different seasons.

6. (a) Using their chief commercial products as a basis, into what regions can you divide Canada?

(b) Show how the chief commercial products of each region are related to the character of the country.

Education Department, Ontario.

Annual Examinations, 1907.

PART II. JUNIOR TEACHERS.

ARITHMETIC AND MENSURATION.

Examiners: $\left\{ \begin{array}{l} \text{W. H. BALLARD, M.A.} \\ \text{J. MATHESON, M.A.} \\ \text{W. PRENDERGAST, B.A.} \end{array} \right.$

1. Find to the nearest digit in the fourth decimal place

$$3.1416 \times \sqrt{\frac{6.5618}{32.1691}}$$

using contracted methods where you can.

2. A wholesale firm allows a retail dealer a discount of 25 per cent. and 10 per cent. What further discount will make this equal to a single discount of 35 per cent. ? 21

3. An agent receives \$7000 to be used in buying wheat. His commission of $2\frac{1}{2}$ per cent. is first to be deducted. Find how much he pays for the wheat.

4. A note for \$960.50, drawn May 23 at 60 days, is discounted June 6 at 8 per cent. Find the proceeds of the note and the rate of interest received by the bank on the money advanced.

5. Find the side of a square equal in area to a triangle whose sides are 273, 294, 315.

6. A cubic foot of water weighs 1000 ounces, and the specific gravity of silver is 10.5; find the weight of a solid cone of silver 10 inches in diameter at the base and 12 inches high.

7. What will it cost a Toronto merchant for a draft on London for £370 17s. 6d., when sterling exchange is quoted at $8\frac{1}{4}$?

8. A gallon of water weighs 10 pounds and occupies 277.27 cubic inches; a metre is equal to 39.37 inches; find in grains the weight of a cubic centimetre of water.

9. \$100 put out at compound interest amounts to \$200 in 14 years; find the rate per cent. per annum.

Given $\log 2 = 0.30103$, $\log 1.05076 = 0.0215021$.

Education Department, Ontario.

Annual Examinations, 1907.

PART II. JUNIOR TEACHERS.

ENGLISH GRAMMAR.

Examiners : { A. R. BAIN, M.A.
W. S. W. McLAY, M.A.
M. W. WALLACE, PH.D.

1. Then Mr. Slope began to meditate, as others also had done, as to who might possibly be the new dean ; and it occurred to him that it might be possible that he should be the new dean *himself*. Whether the stipend might be two thousand or fifteen hundred, it would in any case be a great thing for him, should he be so lucky as to get the position. Mr. Slope, moreover, was not without means whereby he might forward his views. In the first place, he could count upon the assistance the bishop could give him. He immediately changed his views *with regard to* his patron ; he said to himself that if he became *dean*, he would hand his lordship back again to his wife's vassalage, thinking *it* likely that his lordship might not be sorry *to rid* himself of one of his mentors.

Write out the *subordinate* clauses in the above passage, stating the grammatical function and relationship of each, and indicating the word or words to which each is directly attached.

2. State the grammatical values and relations of the italicized words (or group of words) in the above passage, and also in the following :—

- (a) He shook his drowsy squire *awake*.
- (b) *Little* did I expect to see him.
- (c) He was taught *music*.

3. Point out wherein Prepositions and Conjunctions are both like and unlike in their uses.

4. State the grammatical values of the forms in *-ing* in the following sentences, giving reasons for your answer in each case :—

- (a) The wind swept *bellowing* through the darkness.
- (b) He was not at ease in *passing* sentence.
- (c) He owns several *trotting* horses.
- (d) Despite the exhortation and *chiding* of his companions, he steadily persisted in his course.
- (e) Philip's *dwelling* fronted on the street.

[OVER]

5. State, with explanatory comment, *four* changes in *meaning* which words may undergo, giving *two* examples of each change.

6. Analyze the following words so as to show the prefixes, the suffixes, and the roots, giving the meaning of the roots and the value of the prefixes and the suffixes:—irrevocable, discontinuous, antecedent, pronominal.

7. (a) Point out wherein the sound of the letter *d* in *looked* is different from that of the same letter in *loved*, and name and explain the principle that accounts for the difference.

(b) Name and explain the principle that operated to produce the change of vowel in *man* : *men*, giving one other example; also name, without explaining, the principle in the case of *sing* : *sang*.

(c) Having in mind the position of the tongue in pronouncing them, classify the vowel-sounds in the following words:—*see*, *met*, *school*, *man*.

8. Point out the defects in the following sentences, and recast the sentences so as to remove the defects:—

(a) When does the affair transpire?

(b) Though the weather was real cold, he liked outdoor life fine.

(c) He was a man whom I had once hoped would be my friend.

(d) He studied for the ministry, but has never preached that I know of.

(e) The committee was not ready with their report.

(f) Returning to the attack with renewed vigour, the fort was at last captured by the army.

(g) May I also call your attention to the noise made by the milk wagons, which are also a perfect nuisance, and in the morning they commence about three a.m. If the axles of these wagons were properly fixed with washers, the noise would be greatly abated and a by-law should be passed to that effect.

Education Department, Ontario.

Annual Examinations, 1907.

PART II. JUNIOR TEACHERS.

PHYSICS.

Examiners: { C. A. CHANT, PH.D.
F. B. KENRICK, PH.D.
W. H. PIERSOL, B.A.

NOTE.—Give especial attention to accuracy in describing experiments.

1. (a) How would you find the latent heat of vaporization of water? Work out the formula required and explain where errors would be most likely to occur. Suggest means of avoiding these errors.

(b) Given that the boiling point of alcohol is $78^{\circ}\text{C}.$, its latent heat 202, and its mean specific heat 0.65; calculate in calories the amount of heat required to change 500 grammes of alcohol from a liquid at $-10^{\circ}\text{C}.$ to a vapor at $78^{\circ}\text{C}.$

2. (a) Explain the production of *beats*. How would you illustrate the phenomenon by using (i) a tuning-fork, (ii) a piano?

(b) A string stretched by a weight of 5 kilograms gives a certain note. By what weight must a second string of the same material but of twice the diameter be stretched in order to give a note an octave higher than that of the first string?

3. A candle and a gas-flame of 4 times the power of the candle are placed 6 feet apart. Find the two positions on the line passing through the two sources of light where the screen may be put so that it may be equally illuminated by each of them.

4. When white light passes through a red liquid and comes out red, has it acquired its color from the liquid? Explain just what has happened, and give other experiments to show the correctness of your explanation.

[OVER]

5. An object 2 centimetres high is placed before a convex lens of focal length 12 centimetres at distances 8, 20 and 24 centimetres, respectively. Find, by drawing or otherwise, the position, nature and magnitude of the image in each case.

6. (a) Two wires come from a dynamo used for lighting incandescent lamps. How would you determine, without a special instrument, which is positive and which is negative?

(b) Explain the construction of an electromagnet and describe fully some instrument in which the electromagnet is an essential part.

7. (a) Twelve cells are arranged in series and the resistance of the circuit external to the cells is 40 ohms. The resistance of each cell is 7·3 ohms and its E.M.F. 1·5 volts. Find the current strength. What arrangement of the cells will give the greatest current?

(b) Draw a clear diagram to show the construction of the induction coil. How would you diminish the strength of the spark between the secondary terminals?

Education Department, Ontario.

Annual Examinations, 1907.

PART II. JUNIOR TEACHERS.

CHEMISTRY.

Examiners: { C. A. CHANT, PH.D.
F. B. KENRICK, PH.D.
W. H. PIERSOL, B.A.

1. Explain the meaning of the following terms, giving two examples of each:—(a) acid, (b) base, (c) acid anhydride, (d) oxidizing agent, (e) mechanical mixture.

2. State fully the information conveyed by (a) the formula HCl , (b) the formula O_2 . ($\text{H} = 1.01 \text{ g.}$, $\text{Cl} = 35.45 \text{ g.}$, $\text{O} = 16 \text{ g.}$)

3. Describe, *without* equations, a convenient laboratory method for preparing (a) ammonia gas, (b) chlorine, (c) hydrogen chloride. How could you distinguish between dilute aqueous solutions of these three substances?

4. A gaseous compound is found to contain 14.4% of hydrogen and 85.6% of carbon, by weight, and one litre of it is found to weigh 1.252 grammes, at 0°C. and 760 mm. pressure. Find the chemical formula of the gas, giving all arithmetical work and your reasons for each step in the answer. ($\text{C} = 12 \text{ g.}$, $\text{H} = 1.01 \text{ g.}$)

5. Write the chemical formulae for the following substances and mention one practical use to which each substance is put:—(a) nitrous oxide, (b) ammonium sulphate, (c) potassium chlorate, (d) sulphur dioxide, (e) hydrogen peroxide, (f) sodium carbonate.

6. How would you decide experimentally whether a given solution was a saturated solution, an unsaturated solution, or a supersaturated solution of nitre?

Education Department, Ontario.

Annual Examinations, 1907.

PART II. JUNIOR TEACHERS.

ALGEBRA.

Examiners: $\left\{ \begin{array}{l} \text{W. H. BALLARD, M.A.} \\ \text{J. MATHESON, M.A.} \\ \text{W. PRENDERGAST, B.A.} \end{array} \right.$

1. Resolve into factors:—

(a) $x^4 - 7x^2y^2 + y^4,$

(b) $9x^2 - 18x + 8,$

(c) $2x^2 - 5xy + 2y^2 + 7xz - 5yz + 3z^2.$

2. Simplify:—

$$\frac{4a^2b^2}{a^4 - b^4} + \frac{2a^2}{a^2 + b^2} + \frac{a}{a + b} - \frac{a}{b - a}.$$

3. Solve the equations:—

(a) $\frac{x}{a - 2b} = 2 + \frac{x}{2a - b}.$

(b) $\begin{array}{l} ax + by + c = 0, \\ px + my + q = 0. \end{array}$

(c) $ax^2 + bx + c = 0.$

4. For what value of k will the roots of the equation, $x^2 - 10x = k$, be equal?

5. Form the equation whose roots are respectively twice as great as those of the equation $24x^2 - 38x + 15 = 0.$

6. Solve the equations:—

(a) $\begin{array}{l} 3x + 2y - 4z = 15, \\ 5x - 3y + 2z = 28, \\ 3y + 4z - x = 24. \end{array}$

(b) $\begin{array}{l} 8x^3 + y^3 = 280, \\ 2x + y = 10. \end{array}$

(c) $\sqrt{(4x + 7)} + \sqrt{(4x + 3)} = 6.$

[OVER]

7. Find two numbers whose difference is 3, and the sum of whose squares is 317.

8. A number consists of two digits whose sum is 11. If the order of the digits be reversed, the number thus obtained is greater by 7 than twice the original number. Find the digits.

9. Calculate to two decimal places the value of

$$\frac{7\sqrt{2} + \sqrt{3}}{7\sqrt{2} - \sqrt{3}}.$$

Education Department, Ontario.

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PART II. JUNIOR TEACHERS.

ENGLISH COMPOSITION.

Examiners : { A. R. BAIN, M.A.
W. S. W. McLAY, M.A.
M. W. WALLACE, PH.D.

Write a composition on *one* of the following subjects:—

- (a) Alfred, Lord Tennyson ;
- (b) The Story of Enoch Arden's Life ;
- (c) The Immigration Problem in Canada ;
- (d) An Early Morning Walk in Summer ;
- (e) The Difficulty of Securing Help on Ontario Farms.

Education Department, Ontario.

Annual Examinations, 1907.

PART II. JUNIOR TEACHERS.

GEOMETRY.

Examiners: { W. H. BALLARD, M.A.
J. MATHESON, M.A.
W. PRENDERGAST, B.A.

1. If two angles and a side of one triangle are respectively equal to two angles and the corresponding side of another triangle, the two triangles are equal in all respects.

2. In a given circle, inscribe a triangle equiangular to a given triangle.

3. Through a given point, draw a straight line to form an isosceles triangle with two given intersecting straight lines; and show that there are two solutions.

4. Find a fourth proportional to three given straight lines.

5. One diagonal of a parallelogram is equal to a side. Show that the other diagonal is greater than any side.

6. The angles between a tangent to a circle and a chord from the point of contact are respectively equal to the angles in the alternate segments.

7. To a given circle, draw a tangent which shall make a given angle with a given straight line.

8. The vertical angle of a triangle is bisected. Show that the bisector divides the base in the ratio of the sides.

9. The areas of similar triangles are as the squares of corresponding sides.

10. ABC is a triangle right-angled at B . BD is the altitude to the hypotenuse. Show that $BD^2 = AD \cdot DC$.

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PART II. JUNIOR TEACHERS.

ENGLISH POETICAL LITERATURE.

Examiners: { A. R. BAIN, M.A.
W. S. W. McLAY, M.A.
M. W. WALLACE, PH.D.

1. (a) You ask me, why, tho' ill at ease,
Within this region I subsist.
- (b) I seek a warmer sky,
And I will see before I die
The palms and temples of the South.

In your own words, give the reasons why the poet will "subsist within this region", and describe the conditions that would lead him to "seek a warmer sky".

2. Indicate with precision the connection in which any *five* of the following passages occur:—

- (a) Indeed, it is a strange disposed time :
But men may construe things after their fashion,
Clean from the purpose of the things themselves.
- (b) Yet unask'd
His bashfulness and tenderness at war,
He set himself beside her, saying to her :
- (c) A barren-spirited fellow ; one that feeds
On abjects, orts and imitations,
Which out of use and stal'd by other men,
Begin his fashion : do not talk of him
But as a property.
- (d) And if his fellow spake,
His voice was thin, as voices from the grave ;
And deep-asleep he seem'd, yet all awake,
And music in his ears his beating heart did make.
- (e) But anon her awful jubilant voice,
With a music strange and manifold,
Flowed forth on a carol free and bold.
- (f) The posture of your blows are yet unknown ;
But for your words, they rob the Hybla bees,
And leave them honeyless.
- (g) Grave mother of majestic works,
From her isle-altar gazing down,
Who, God-like, grasps the triple forks,
And, King-like, wears the crown.

[OVER]

3. I cannot rest from travel : I will drink
 Life to the lees : all times I have enjoy'd
 Greatly, have suffer'd greatly, both with those
 That loved me, and alone ; on shore, and when
 5 Thro' scudding drifts the rainy Hyades
 Vext the dim sea : I am become a name ;
 For always roaming with a hungry heart
 Much have I seen and known ; cities of men
 And manners, climates, councils, governments
 10 Myself not least, but honour'd of them all ;
 And drunk delight of battle with my peers,
 Far on the ringing plains of windy Troy.
 I am a part of all that I have met ;
 Yet all experience is an arch wherethro'
 15 Gleams that untravell'd world, whose margin fades
 For ever and for ever when I move.
 How dull it is to pause, to make an end,
 To rust unburnish'd, not to shine in use !
 As tho' to breathe were life. Life piled on life
 20 Were all too little, and of one to me
 Little remains : but every hour is saved
 From that eternal silence, something more,
 A bringer of new things ; and vile it were
 For some three suns to store and hoard myself,
 25 And this gray spirit yearning in desire
 To follow knowledge like a sinking star,
 Beyond the utmost bound of human thought.

(a) Express in your own words the meaning of the following:—"I will drink life to the lees" (l. 2); "I am become a name" (l. 6); "I am a part of all that I have met" (l. 13); "Yet all experience is an arch wherethro' Gleams that untravell'd world, whose margin fades, For ever and for ever when I move" (ll. 14-16); "but every hour is saved From that eternal silence, something more, A bringer of new things" (ll. 21-23).

(b) "Thro' scudding drifts the rainy Hyades Vext the dim sea" (ll. 5-6). What natural phenomenon does the speaker refer to in the phrase "scudding drifts"? What were the "Hyades", and why called "rainy"?

(c) Divide lines 5, 6, and 14, into feet, marking the accents.

4. Quote *one* of the following:—

- (a) "Tears, idle Tears" (the whole poem).
- (b) Any fifteen *consecutive* lines from the eighth stanza of the Choric Song of the Lotos Eaters, the stanza beginning "The Lotos blooms below the barren peak".
- (c) Six consecutive stanzas of the song in "The Brook."
- (d) Fifteen consecutive lines from the "Ode on the Death of the Duke of Wellington."
- (e) The three passages beginning, respectively, "Therein, ye Gods, ye make the weak most strong" (seven lines); "Between the acting of a dreadful thing" (seven lines); "There is a tide in the affairs of men" (four lines).

5. Write a careful descriptive outline of the incidents and utterances of Act III., Scene 1, of *Julius Caesar*, (the scene of the assassination of Caesar) from the beginning to the entrance of Antony's servant.

6. (a) Mention *three* important decisions made by Brutus against the advice of Cassius, which the sequel proves to have been serious mistakes of policy.

(b) In each case state the reasons urged by Brutus in favour of his own plan, and those by Cassius against it.

7.

Now the golden Morn aloft

Waves her dew-bespangled wing,
With vermeil cheek and whisper soft
She woos the tardy Spring :

5 Till April starts, and calls around
The sleeping fragrance from the ground,
And lightly o'er the living scene
Scatters his freshest, tenderest green.

New-born flocks, in rustic dance,
10 Frisking ply their feeble feet ;
Forgetful of their wintry trance
The birds his presence greet :
But chief, the sky-lark warbles high
His trembling thrilling ecstasy ;
15 And lessening from the dazzled sight,
Melts into air and liquid light.

Yesterday the sullen year
Saw the snowy whirlwind fly ;
Mute was the music of the air,
20 The herd stood drooping by :
Their raptures now that wildly flow
No yesterday nor morrow know ;
'Tis Man alone that joy describes
With forward and reverted eyes.

25 Smiles on past misfortune's brow
Soft reflection's hand can trace,
And o'er the cheek of sorrow throw
A melancholy grace ;
While hope prolongs our happier hour,
30 Or deepest shades, that dimly lour
And blacken round our weary way,
Gilds with a gleam of distant day.

Still, where rosy pleasure leads,
See a kindred grief pursue ;
35 Behind the steps that misery treads
Approaching comfort view :
The hues of bliss more brightly glow
Chastised by sabler tints of woe,
And blended form, with artful strife,
40 The strength and harmony of life.

[OVER]

See the wretch that long has tost
On the thorny bed of pain,
At length repair his vigour lost
And breathe and walk again :
45 The meanest floweret of the vale,
The simplest note that swells the gale,
The common sun, the air, the skies,
To him are opening Paradise.

(a) State in your own words the central thought of the foregoing poem.

(b) Show the relation of (i) the first two stanzas, and (ii) the last stanza, to the central thought.

(c) Express briefly and simply, in your own words, the meaning of the following:—

- (i) 'Tis Man alone that joy descries
With forward and reverted eyes (ll. 23-24).
- (ii) Smiles on past misfortune's brow
Soft reflection's hand can trace (ll. 25-26).
- (iii) The common sun, the air, the skies,
To him are opening Paradise (ll. 47-48).

Education Department, Ontario.

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JUNIOR MATRICULATION AND PART II. JUNIOR TEACHERS.

LATIN AUTHORS (VIRGIL), ACCIDENCE AND SIGHT TRANSLATION.

Examiners: { W. H. ALEXANDER, PH.D.
 { G. W. JOHNSTON, PH.D.
 { J. MACNAUGHTON, M.A.

1. Translate into English :—

Hanc pro Palladio moniti, pro numine laeso,
effigiem statuere, nefas quae triste piaret.

Hanc tamen immensam Calchas attollere molem
roboribus textis, caeloque educere jussit

5 ne recipi portis aut duci in moenia possit,
neu populum antiqua sub religione tueri.

Nam si vestra manus violasset dona Minervae,
tum magnum exitium—quod di prius omen in ipsum
convertant!—Priami imperio Phrygibusque futurum

10 sin manibus vestris vestram ascendisset in urbem,
ultro Asiam magno Pelopea ad moenia bello
venturam, et nostros ea fata manere nepotes.

Talibus insidiis perjurique arte Sinon
credita res, captique dolis lacrimisque coactis

15 quos neque Tydides nec Larissaeus Achilles,
non anni domuere decem, non mille carinae.

2. Scan lines 8 and 9, marking clearly the quantity of each syllable. Explain any special metrical peculiarities arising in these two lines.

3. Write a note on the syntax of *credita res* (l. 14). Give the principal parts of *domuere* (l. 16), and point out any unusual or peculiar feature in them. To what circumstances do the phrases *anni decem* and *mille carinae* (l. 16) refer?

4. Aeneas is not a very prominent figure in Homer. Explain how this fact would confer an advantage upon Virgil in making Aeneas his hero.

5. Decline in combination :—*hoc mare, quod iter?* [OVER]

6. Translate, explaining the reference of the italicized words and the meaning of the italicized phrases:—

(a) Hoc *Ithacus* velit et magno mercentur *Atridae*.

(b) Qualis mugitus fugit cum saucius aram
taurus et *incertam excussit cervice securim*.

(c) Hei mihi qualis erat! quantum mutatus ab illo
Hectore qui redit *exuvias indutus Achilli*.

(d) *Haud secus* Androgeos visu tremefactus abibat.

7. Give the nominative singular, genitive singular, and gender of the following nouns:— monti, litora, noctem, acie, aestuum, roboribus, ossa, sanguine.

8. Give the principal parts of the following verbs:—reddit, petunt, gestis, egerunt, deposita, nactus, maneres, velit, venturam, obliviscere, forent, placastis.

9. In the case of the last six verbs of question 8, viz: maneres, etc., state the mood, voice, tense, person, number of the forms given.

10. Inflect the following tenses in full:—finget, vultis.

11. Give the other degrees of comparison for:—supremus, major, infelix, plurimus, humilior, gravis.

12. Give the other degrees of comparison for the following adverbs:—audacissime, saepius, magnopere, celeriter, cupidius, facile.

13. Translate into English:—

(a) Itaque, duabus legionibus missis in ulteriorem Hispaniam cum Q. Cassio tribuno, ipse cum sexcentis equitibus magnis itineribus praegreditur edictumque praemittit ut ad certum diem magistratus principesque omnium civitatum Cordubam convenirent. Quo edicto tota provincia pervulgato, nulla fuit civitas quin ad id tempus partem maximam senatus Cordubam mitteret.

pervulgo—publish abroad.

Corduba—Cordova (name of a town).

(b) Nondum opere castrorum perfecto, equites ex statione nuntiant magna auxilia equitum peditumque ab rege missa Uticam venire, eodemque tempore vis magna pulveris cernebatur et subito primum agmen hostium erat in conspectu. Qua re Curio maxime permotus, celeriter ab opere deductis legionibus, aciem instruit; interim equites praemissi erant qui primum impetum sustineant.

auxilia—reinforcements.

Utica—Utica (name of a city).

vis—quantity.

Education Department, Ontario.

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JUNIOR MATRICULATION AND PART II. JUNIOR TEACHERS.

LATIN COMPOSITION. SYNTAX, AND CAESAR.

Examiners: { W. H. ALEXANDER, PH.D.
G. W. JOHNSTON, PH.D.
J. MACNAUGHTON, M.A.

1. Turn the following sentences into idiomatic English, in extract (a) translating the participial clause in *three* different ways, and in extract (b) translating the participles by principal verbs, and *solvit* by a participle:—

(a) His rebus celeriter magna multitudo peditatus equitatusque coacta ad castra venerunt.

(b) Ad solis occasum naves solvit et leni Africo proventus media circiter nocte vento intermisso cursum non tenuit.

2. Translate into idiomatic English:—

(a) Quibus rebus cognitis principes Britanniae, qui post proelium ad Caesarem convenerant, inter se collocti, cum equites et naves et frumentum Romanis deesse intellegerent et paucitatem militum ex castrorum exiguitate cognoscerent, quae hoc erant etiam angustiora, quod sine impedimentis Caesar legiones transportaverat, optimum factu esse duxerunt, rebellione facta, frumento commeatuque nostros prohibere et rem in hiemem producere, quod his superatis aut reditu interclusis neminem postea belli inferendi causa in Britanniam transiturum confidebant.

(b) Accedebat huc, ut numquam conferti, sed rari magnisque intervallis proeliarentur stationesque dispositas haberent, atque alios alii exciperent, integrique et recentes defatigatis succederent.

3. Parse fully, being careful to explain the syntax, and also to give the principal parts of verbs:—*Quibus, his, factu, duxerunt, transiturum*, in 2 (a), and *haberent, defatigatis*, in 2 (b).

[OVER]

4. Name the case of each of the following words and give a clear explanation of the reason for the case:—*Romanis*, *reditu*, *neminem*, in 2 (a); *intervallis* in 2 (b).

5. Give the other degrees of comparison of:—*angustiora*, *optimum*, *longius*.

6. Rewrite the following extract in the direct discourse:—

(Indutiomarus legatos ad Caesarem mittit:) sese idcirco ab suis discedere atque ad eum venire noluisse, quo facilius civitatem in officio contineret, ne omnis nobilitatis discessu plebs propter imprudentiam laberetur.

7. Translate into Latin:—

NOTE.—English words enclosed within brackets are not to be translated.

- (a) To those very places; of all these ships; by a very easy and very short march; within three days.
- (b) To whom have you given his book? I hope it will not be lost (*amitto*).
- (c) The same prisoners told us that their (people) lacked everything.
- (d) He will order the ships which were wrecked (*frango*) to be sent to this port and repaired.
- (e) (There) will be a larger force (*use plural*) in the enemy's camp when their two chiefs return with the rest of the cavalry.
- (f) Setting out at about the third watch (of the night), they went into the country (*say fields*) to forage.
- (g) Will it not be better for us to send messengers to Caesar to ask peace of him? You all see that we cannot hold out longer.
- (h) It will be your duty to ascertain their whereabouts and report to us at Rome.
- (i) With two thousand foot and two hundred horse the lieutenant advanced so rapidly that the fugitives (*use participle*) were soon in sight. He came up with (*consequor*) these as they were about to cross (*use participle*) to the other bank of the river.

Education Department, Ontario.

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JUNIOR MATRICULATION.

FRENCH AUTHORS, GRAMMAR AND SIGHT TRANSLATION.

Examiners: { J. W. G. ANDRAS, PH.D.
P. EDGAR, PH.D.
J. SQUAIR, B.A.

A

1. Translate into English:—

De temps en temps quand je levais les yeux de dessus ma page, je voyais M. Hamel immobile dans sa chaire et fixant les objets autour de lui, comme s'il avait voulu emporter dans son regard toute sa petite maison d'école. Pensez ! depuis quarante ans, il était là à la même place, avec sa cour en face de lui et sa classe toute pareille. Seulement les bancs, les pupitres s'étaient polis, frottés par l'usage ; les noyers de la cour avaient grandi, et le houblon qu'il avait planté lui-même enguirlandait maintenant les fenêtres jusqu'au toit. Quel crève-cœur ça devait être pour ce pauvre homme de quitter toutes ces choses, et d'entendre sa sœur qui allait, venait, dans la chambre au-dessus, en train de fermer leurs malles ! car ils devaient partir le lendemain, s'en aller du pays pour toujours.

2. Translate into English:—

Souviens-toi de m'écrire *ces mots*. Je les veux faire graver en lettres d'or sur la cheminée de ma salle. (*L'Avare*.)

3. Write down the French words meant by *ces mots* in the preceding question.

B.

4. Translate into English:—

Votre compassion, lui répondit l'arbuste,
Part d'un bon naturel ; mais quittez ce souci :
Les vents me sont moins qu'à vous redoutables.
Je plie, et ne romps pas. Vous avez jusqu'ici
Contre leurs coups épouvantables
Résisté sans courber le dos ;

[OVER]

Mais attendons la fin. Comme il disait ces mots,
Du bout de l'horizon accourt avec furie
Le plus terrible des enfants
Que le nord eût portés jusque-là dans ses flancs.
L'arbre tient bon ; le roseau plie.

5. Write down the present tense indicative in full of the verbs *rompre*, *courir*, *partir*, *tenir* ; also their present and past participles.

C.

6. Translate into English :—

BLANCHE, *tenant un papier*.—Je te cherchais pour te remettre le discours que tu dois prononcer au comice agricole.

CABOUSSAT.—Si je suis réélu . . . Tu l'as revu ?

BLANCHE.—Recopié seulement.

CABOUSSAT.—Oui . . . comme les autres. Ah ! chère petite . . . sans toi ! Comment trouves-tu le commencement ?

BLANCHE.—Très beau !

CABOUSSAT, *lisant*.—"Messieurs et chers collègues, l'agriculture est la plus noble des professions" . . . Tiens ! tu as mis deux s à profession ?

BLANCHE.—Sans doute.

CABOUSSAT.—Ah ! chère petite ! (*A part*) Moi, j'avais mis un t . . . tout simplement (*Lisant*) "La plus noble des professions." (*Parlé*) Avec deux s (*Lisant*) "J'ose le dire, celui qui n'aime pas la terre, celui dont le cœur ne bondit pas à la vue d'une charrue, celui-là ne comprend pas la richesse des nations." (*S'arrêtant*) Tiens, tu as mis un t à nations ?

BLANCHE.—Toujours.

CABOUSSAT.—Ah ! chère petite ! (*A part*) Moi, j'avais mis un s tout simplement ! . . . les t, les s . . . jamais je ne pourrai retenir ça.

7. Explain, in a few words, the context of the following passage, without writing the translation of it :—

CABOUSSAT.—Voilà, mon ami. Il y a quelques pâtés par-ci par-là . . . mais j'ai une mauvaise plume.

MACHUT.—Ça ne fait rien, avec un pareil papier je suis tranquille.

CABOUSSAT, *à part*.—Oui, mais moi, je ne le suis pas.

8. CABOUSSAT, *lisant*.—"J'aime mademoiselle Blanche d'un amour insensé depuis que je l'ai vue."

POITRINAS, *à part*.—Vu . . . sans e . . . le régime est avant, animal !

Explain this remark of Poitrinas.

9. Translate into English:—

Une nation est une âme, un principe spirituel. Deux choses qui, à vrai dire, n'en font qu'une, constituent cette âme, ce principe spirituel. L'une est dans le passé, l'autre dans le présent. L'une est la possession en commun d'un riche legs de souvenirs; l'autre est le consentement actuel, le désir de vivre ensemble, la volonté de continuer à faire valoir l'héritage qu'on a reçu indivis. L'homme ne s'improvise pas. La nation, comme l'individu, est l'aboutissant d'un long passé d'efforts, de sacrifices et de dévouements. Les ancêtres nous ont faits ce que nous sommes. Un passé héroïque, de grands hommes, de la gloire (j'entends de la véritable), voilà le capital social sur lequel on assied une idée nationale. Avoir des gloires communes dans le passé, une volonté commune dans le présent; avoir fait de grandes choses ensemble, vouloir en faire encore, voilà la condition essentielle pour un peuple.

Education Department, Ontario.

Annual Examinations, 1907.

JUNIOR MATRICULATION.

FRENCH COMPOSITION.

Examiners : { J. W. G. ANDRAS, PH.D.
P. EDGAR, PH.D.
J. SQUAIR, B.A.

A.

Translate into French :—

1. Do not get angry, but pardon your enemies.
2. Send for the doctor; my cousin has hurt himself.
3. The doctor has gone out; he will return at a quarter to eleven.
4. Victor Hugo, a great French poet, was born in 1802 (*date in full*).
5. I am glad that you have found your blue hat.
6. Remain here until your brother returns.
7. Which of your friends has gone to Europe?
8. None of my friends has gone this year.
9. I remember all that he said.
10. He would not tell me what he had said.
11. Harpagon was a miser, was he not?
12. Have you ever read Molière's *L'Avare*?
13. I met two men last week whose names I have forgotten.
14. That is the man whose son lives in the United States.
15. One should be proud to have been born in Canada.
16. He had to sell his house cheap.
17. They will get up early to go to the station.
18. Never mind; bring your sister if she wishes to come.
19. Take off your gloves and sit down.
20. Give them something to drink. Give them something good to drink.
21. I heard my name called more than three times.
22. I did not answer because I was afraid.
23. Do you not see those two men coming?
24. They had the sick man carried into the other room.

[OVER]

B.

Translate into French:—

Many amusing things happen in the little comedy (*pièce f.*) which we read this year. It is written by Labiche, and is called *La Grammaire*. Jean is the servant of François Caboussat, a retired merchant of Arpajon. He is always breaking cups and saucers and even more valuable things. At the very beginning of the play he lets a salad-bowl fall, and of course it breaks. He has a habit of burying the pieces at the back of the garden. M. Caboussat's cow tried to swallow a bit of the glass, and the poor animal died in consequence. Presently a friend named Poitrinas comes to Caboussat's house. He is sure that there are Roman antiquities in the garden, so he digs there and discovers a great many things which Jean had hidden there. He even cuts down an apricot tree and a plum tree, but he finds that there is nothing beneath them. He wishes his son to marry the daughter of his friend Caboussat.

Education Department, Ontario.

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JUNIOR MATRICULATION.

GERMAN AUTHORS, GRAMMAR, AND SIGHT TRANSLATION.

Examiners: { J. W. G. ANDRAS, PH.D.
P. EDGAR, PH.D.
J. SQUAIR, B.A.

A.

1. Translate into English :—

Die Knaben traten an's Fenster und sahen dem Käfer nach. In weitem Bogen durchschnitt das blitzende Kleinod die Luft und verschwand jenseits der Gartenmauer. Jetzt wurde im Nebenzimmer ein Häuspern vernehmbar, und die beiden Schüler kehrten
5 eilig zu ihren Büchern zurück.

„Da haben wir das Wunder,“ flüsterte Hans seinem Kameraden zu und zeigte auf das Tintenfaß.

Aus dem Tintenfaß heraus ragte ein grünes Reis, das wuchs zusehends und stieg zur Decke hinan.

1 0 „Wir träumen,“ sagte Heinz und rieb sich die Augen.

„Nein, das ist ein Märchen,“ jubelte Hans, „ein lebendiges Märchen, und wir spielen mit.“

Und das Reis wurde stärker und trieb Nester und Zweige mit Blättern und Blüten. Die Decke des Zimmers verschwand, die
1 5 Wände wichen, und eine dämmernde Waldhalle umfing die staunenden Knaben.

2. auf das Tintenfaß. Explain the case employed.

3. Give the gender of Nester, Zweige, Blättern, Blüten.

B.

4. Translate into English :—

Als Peter nach Haus kam, fand er seine Mutter sehr in Sorgen um ihn, denn die gute Frau glaubte nicht anders, als ihr Sohn sei zum Soldaten ausgehoben worden. Er aber war

[OVER]

fröhlich und guter Dinge und erzählte ihr, wie er im Wald einen
 5 guten Freund getroffen, der ihm Geld vorgeschossen habe, um ein
 anderes Geschäft als Kohlenbrennen anzufangen. Obgleich seine
 Mutter schon seit dreißig Jahren in der Köhlerhütte wohnte und
 an den Anblick beruhter Leute so gewöhnt war, als jede Müllerin
 an das Wohlgeſicht ihres Mannes, so war sie doch eitel genug,
 10 sobald ihr Peter ein glänzenderes Loſ zeigte, ihren früheren
 Stand zu verachten, und ſprach: „Ja, als Mutter eines
 Mannes, der eine Glashütte beſitzt, bin ich doch was Anderes,
 als Nachbarin Grete und Bete, und ſetze mich in Zukunft vornehin
 in der Kirche, wo rechte Leute ſißen.“ Ihr Sohn aber wurde
 15 mit den Erben der Glashütte bald Handels einig. Er behielt
 die Arbeiter, die er vorſand, bei ſich und ließ nun Tag und Nacht
 Glas machen. Anfangs geſiel ihm das Handwerk wohl.

5. Give the principal parts of fand, ausgehoben, getroffen, beſitzt.

6. Grete und Bete. Give the uncontracted forms.

7. Give the gender of Wald, Jahren, Zukunft, Tag, Nacht.

8. Give the plural of Sohn, Frau, Mutter, Nachbarin, Nacht.

C.

9. Translate into English :—

In einer kleinen Stadt im Norden von Deutschland lebten zwei Brüder, deren Glücksumstände in ganz verſchiedener Art ſich geſtaltet hatten. Obwohl beider väterliches Erbtheil das gleiche gewesen, ſo befand ſich doch nach einigen Jahren Johann Bobertag, der ältere von beiden, in behaglichem (*comfortable*) Wohlſtande, während der jüngere Bruder Christian in die höchſte Not geriet. Jener war von einer miſtrauiſchen und übelwollenden Gemütsart und ſtets geneigt, von Menſchen und Dingen das Schlimmſte zu denken. Es erfreute ſeine hämiſche (*malicious*) Seele und that ſeinem neidiſchen Herzen wohl, überall die häßlichen Seiten und Fehler aufzufinden, und dies ging ſo weit, daß er an unſerer lieben Sonne zum erſtenmal eine Freude hatte, als ihm kund ward, daß auch ihr ſtrahlender Glanz nicht ohne Flecken ſei.

Education Department, Ontario.

Annual Examinations, 1907.

JUNIOR MATRICULATION.

GERMAN COMPOSITION.

Examiners: { J. W. G. ANDRAS, PH.D.
P. EDGAR, PH.D.
J. SQUAIR, B.A.

A.

Translate into German:—

1. The dogs are lying near the stove, for it is cold.
2. They are also very tired.
3. The hunter has taken them very far with him to-day.
4. He is quite satisfied with them.
5. They are good dogs. He does not blame them.
6. I shall be at home again within three days.
7. Tea and coffee were given to the guests.
8. Will you travel with me to England?
9. He will not be pleased with your gift.
10. I often ask him but he will not answer.
11. We will give a beautiful present to the good (artig) child.
12. Whose umbrella do I see in the corner?
13. It belongs to my young nephew who was in town yesterday.
14. At what time does the steamboat start?
15. Are you about to leave (verlassen) town?
16. If I knew it I should willingly tell you.
17. The train leaves at a quarter to five.
18. Are you fond of skating?
19. If it were not so cold I should like to go with you.
20. But when it gets warmer there will be no ice.

[OVER]

B.

Translate into German :—

A boy was feeding (weiden) a cow in a field near a garden. He saw a cherry tree and noticed (merken) that some ripe cherries were on it. So he left the animal and climbed up the tree. But the cow, as she did not see the boy, broke into the garden and ate flowers and vegetables, and trampled (zertritten) others with her feet. When the boy saw that, he became very angry, sprang from the tree to the ground, seized (ergreifen) the cow and beat her. Then his father, who had seen all, stepped up to him and said: "You are more guilty than the poor animal who does not know what is right or left, for you have followed your own pleasure when you ought to have guided her."

Education Department, Ontario.

Annual Examinations, 1907.

JUNIOR MATRICULATION.

GREEK AUTHORS AND GRAMMAR.

Examiners: { W. H. ALEXANDER, PH.D.
G. W. JOHNSTON, PH.D.
J. MACNAUGHTON, M.A.

A.

1. Translate into English:—

(a) “Κλέαρχε καὶ Πρόξενε καὶ οἱ ἄλλοι Ἕλληνες, τί ποιεῖτε: εἰ γάρ τινα ἀλλήλοις μάχην συνάψετε, νομίζετε ἐν τῇδε τῇ ἡμέρᾳ ἐμέ τε κατακεκόψεσθαι καὶ ὑμᾶς οὐ πολὺ ἐμοῦ ὕστερον· εἰ γὰρ τὰ ἡμέτερα κακῶς ἔχη, πάντες οὗτοι οἱ βάρβαροι πολέμοι ἡμῖν ἔσονται.” Κλέαρχος δὲ ἐπεὶ ἤκουσε ταῦτα ἐν ἑαυτῷ ἐγένετο, καὶ ἐπαύσαντο ἀμφότεροι τῆς ὀργῆς.

(b) ὁρῶν δὲ ὁ Κλέαρχος τὸ μέσον στίφος καὶ ἀκούων βασιλέα τοῦ εὐωνύμου ἔξω ὄντα οὐκ ἠθέλεν ἀποσπάσαι ἀπὸ τοῦ ποταμοῦ τὸ δεξιὸν κέρας, φοβούμενος μὴ κυκλωθείη ἐκατέρωθεν, τῷ δὲ Κύρῳ ἀπεκρίνατο ὅτι αὐτῷ μέλοι ὅπως καλῶς ἔχοι, καὶ ἐν τούτῳ τῷ καιρῷ βασιλεὺς μὲν σὺν τῷ ἑαυτοῦ στρατεύματι προσέρχεται, τὸ δὲ Ἑλληνικὸν ἔτι ἐν τῷ αὐτῷ μένον συντάττεται. καὶ ὁ Κῦρος παρελάυνων οὐ πάνυ πρὸς αὐτῷ τῷ στρατεύματι κατεθεᾶτο ἐκατέρωσε ἀποβλέπων εἰς τε τοὺς πολεμίους καὶ τοὺς φίλους.

2. Name the case of each of the following words and give a sufficient explanation for the use of the case:—ὑμᾶς, ἐμοῦ, πολέμοι, ὀργῆς, in (a).

3. State the tense, mood and voice of συνάψετε, κατακεκόψεσθαι, ἐπαύσαντο in (a); κυκλωθείη, κατεθεᾶτο in (b).

4. Give the principal parts of ποιῶ, ἀκούω, ἔρχομαι, ὁράω, γίγνομαι.

5. Inflect:—

(a) the pres. ind. act. of ὁρῶν, giving the contracted forms only;

(b) the pres. opt. of ἔσονται;

(c) the perf. ind. middle of (συν-)τάττεται, and give the infinitive.

[OVER]

6. Remark on the construction βασιλέα ὄντα in 1 (b), and write down in Greek the direct statement for which it stands.

7. How would μέσον τὸ στίφος differ in meaning from τὸ μέσον στίφος?

8. Decline πάντες οὗτοι in all genders (plural only).

B.

9. Translate into idiomatic English :—

(a) Καὶ οἱ μὲν ἀπέπλεον ἐς Κόρινθον· τὸν δὲ Ἀρίονα δελφὶς, ὡς λέγουσι, ὑπολαβὼν ἐξήνεγκεν ἐπὶ Ταίναρον. Ἀποβὰς δὲ ἐχώρει ἐς Κόρινθον σὺν τῇ σκευῇ, καὶ ἀφικόμενος ἀφηγεῖτο πᾶν τὸ γεγονός. Περίανδρος δὲ ὑπὸ ἀπιστίας Ἀρίονα μὲν ἐν φυλακῇ εἶχεν, οὐδαμῇ μεθίεις, ἀνακῶς δὲ εἶχε τῶν πορθμῶν. Ὡς δὲ ἄρα παρήσαν, κληθέντας αὐτοὺς ἤρετο εἴ τι λέγοιεν περὶ Ἀρίονος. Φαμένων δὲ ἐκείνων ὡς εἶη τε σῶς περὶ Ἰταλίαν καὶ λίποιν εὖ πράττοντα ἐν Τάραντι, ἐπεφάνη σφι ὁ Ἀρίων, ὥσπερ ἔχων ἐξεπήδησε. Καὶ οἱ ἐκπλαγέντες οὐκ εἶχον ἔτι ἐλεγχόμενοι ἀρνέισθαι.

(b) Ὡς δὲ αὐτῷ ἐδόκει μόρσιμον εἶναι ἤδη τῇ Βαβυλῶνι ἀλίσκεσθαι, προσελθὼν Δαρείῳ ἀπεπυνθάνετο εἰ περὶ πολλοῦ ποιεῖται τὴν Βαβυλῶνα ἐλεῖν. Πυθόμενος δὲ ὡς πολλοῦ τιμῶτο, ἐβουλεύετο ὅπως αὐτός τε ἔσται ὁ ἐλὼν αὐτὴν καὶ ἑαυτοῦ τὸ ἔργον ἔσται. Ἄλλως νυν οὐκ ἐφράζετο δυνατὸς εἶναι ὑποχειρίαν αὐτὴν ποιῆσαι, εἰ μὴ ἑαυτὸν λωβησάμενος αὐτομολήσειεν ἐς αὐτούς. Ἐνταῦθα, ἐν ἐλαφρῷ ποιησάμενος, ἑαυτὸν λωβᾶται λώβην ἀνήκεστον· ἀποταμὼν γὰρ ἑαυτοῦ τὴν ῥίνα καὶ τὰ ὦτα, καὶ τὴν κόμην κακῶς περικείρας, καὶ μαστιγώσας ἑαυτὸν ἦλθε παρὰ Δαρεῖον.

10. Parse in (a) ἀποβὰς, κληθέντας; in (b) ἐλεῖν, ἀποταμὼν, telling what part of the verb each form is and giving the nominative and genitive singular, in all genders, of the participial forms.

11. Give the form in Greek of the *direct* statement contained in ὡς εἶη τε σῶς καὶ λίποιν εὖ πράττοντα in (a), and of the *direct* question contained in εἰ ποιεῖται in (b). What other form might be used for ποιεῖται? Explain.

12. τιμῶτο. Name the tense, mood and voice, and inflect the tense (that is, in this mood only).

13. Decline in the singular πᾶν τὸ γεγονός.

Education Department, Ontario.

Annual Examination, 1907.

JUNIOR MATRICULATION.

GREEK COMPOSITION AND SIGHT TRANSLATION.

Examiners: { W. H. ALEXANDER, PH.D.
G. W. JOHNSTON, PH.D.
J. MACNAUGHTON, M.A.

1. Translate into Greek :—

On (ἐπί) the long wall. To the guards themselves.
The swiftest ships (*acc.*). Of a prudent ruler. O fairest
woman. Better leaders. This safer road (*acc.*). By land
and sea. They were ordered to send (*aor.*) an interpreter.
We pursued the enemy all night. He had plotted against
his brother. He said he could not help us. Don't give him
the money.

2. Translate into Greek :—

- (a) The king considers he is victorious, now that Cyrus
is dead.
- (b) I shall not go away from the city unless you com-
mand me to do so.
- (c) The barbarians never encamped less than sixty
stadia from the Greeks, fearing that they might
attack (ἐπιτίθεμαι) them by night.
- (d) The report went through the army that Cyrus
would pursue (*two forms*) the fugitives with fast
triremes.
- (e) See to it then, soldiers, that you be men worthy of
the freedom which you possess (κέκτημαι).

[OVER]

3. Translate into English :—

Ἐν δὲ τούτῳ τῷ χρόνῳ ἐδόκει τῷ Ξενοφῶντι, ὁρῶντι τοὺς μὲν ὀπλίτας τῶν Ἑλλήνων πολλούς, τοὺς δὲ πελταστὰς καὶ τοξότας καὶ σφενδονήτας καὶ ἱππέας πολλούς, καὶ μάλα ἤδη διὰ τὴν τριβὴν ἱκανούς, ὄντας δ' ἐν τῷ Πόντῳ ἔνθα οὐκ ἂν ἀπ' ὀλίγων χρημάτων τοσαύτη δύναμις παρεσκευάσθη,— ἐδόκει αὐτῷ καλὸν εἶναι προσκτῆσασθαι χώραν καὶ πόλιν τῇ Ἑλλάδι, πόλιν κατοικίσαντας. καὶ γενέσθαι ἂν αὐτῷ ἐδόκει μεγάλη, καταλογιζομένῳ τό τε ἑαυτῶν πλῆθος καὶ τοὺς περιοικούντας τὸν Πόντον. καὶ ἐπὶ τούτοις ἐθύετο πρὶν τι εἰπεῖν τῶν στρατιωτῶν, Σίλανον παρακαλέσας τὸν Κύρου μάντιν γενόμενον. ὁ δέ, δεδιὼς μὴ γένηται ταῦτα καὶ καταμείνη που ἢ στρατιά, ἐκφέρει εἰς τὸ στράτευμα λόγον ὅτι Ξενοφῶν βούλεται καταμείναι τὴν στρατιὰν καὶ πόλιν οἰκίσαι καὶ ἑαυτῷ ὄνομα καὶ δύναμιν περιποιήσασθαι. αὐτὸς δ' ὁ Σίλανος ἐβούλετο ὅτι τάχιστα εἰς τὴν Ἑλλάδα ἀφικέσθαι. οὓς γὰρ παρὰ Κύρου ἔλαβε τρισχιλίους δαρεικοὺς διεσεσώκει. τῶν δὲ στρατιωτῶν, ἐπεὶ ἤκουσαν, τοῖς μὲν ἐδόκει βέλτιστον εἶναι καταμείναι, τοῖς δὲ πολλοῖς οὐ.

τριβή—training.

ἱκανός—fit.

ἐνθα—where.

οἰκίζω—to found (a city).

προσκτάομαι—to acquire in addition.

καταλογίζομαι—to take into account.

ἐπὶ τούτοις—with this end in view.

Education Department, Ontario.

Annual Examinations, 1907.

JUNIOR MATRICULATION.

HISTORY.

Examiners: { A. R. BAIN, M.A.
W. S. W. McLAY, M.A.
M. W. WALLACE, PH.D.

PART A.—BRITISH AND CANADIAN

1. Sketch the career and character of Henry VIII., specially emphasizing two of the steps taken by him which the subsequent history of the English people has shown were important.
2. From the disturbances attending the career of Wilkes, what results followed permanently affecting :—
 - (a) the powers of the House of Commons ;
 - (b) the liberty of the press ?
3. Narrate the struggles, from 1830 to 1832, over the Reform Bill, and point out the changes in the political life of England which the Bill produced.
4. On what terms did the Hudson's Bay Company agree to surrender its lands to the Dominion Government ? How was this annexation to Canada viewed by the Red River settlers ?
5. Write historical notes on :—
 - (a) The Ashburton Treaty, 1842 ;
 - (b) The Reciprocity Treaty, 1854 ;
 - (c) The Seigniorial Tenure Act, 1854.

Education Department, Ontario.

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JUNIOR MATRICULATION.

HISTORY.

Examiners : { A. R. BAIN, M.A.
W. S. W. McLAY, M.A.
M. W. WALLACE, PH.D.

PART B.—ANCIENT.

1. Relate the legends of Theseus, Cadmus, and Hercules.
2. Write notes on :—
 - (a) the career of Epaminondas ;
 - (b) the Peloponnesian war from its commencement to the Peace of Nicias.
3. (a) Mention the principal sources of supply of slaves in Hellas and describe their treatment.
(b) Point out the bearing of slavery on the civilization of the Greeks.
4. State the origin, course and outcome of the war with Pyrrhus. For what purpose did Pyrrhus undertake it ?
5. Indicate the position of each of the following, and mention an important historical event connected with each :—Mycale, Ægospotami, Chaeroneia, Granicus, Sentinum, Zama, Pydna, Pharsalus.

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JUNIOR MATRICULATION.

EXPERIMENTAL SCIENCE.

Examiners: { C. A. CHANT, PH.D.
F. B. KENRICK, PH.D.
W. H. PIERSOL, B.A.

PART A.—PHYSICS.

1. A rectangular tank of length 25 centimetres, breadth 20 centimetres, height 16 centimetres, is filled with alcohol of density 0.81. Find the volume of the liquid in litres and its weight in kilogrammes.

2. (a) Find the resulting temperature when 500 grammes of water at $4^{\circ}\text{C}.$, 800 grammes at $20^{\circ}\text{C}.$, and 1200 grammes at $60^{\circ}\text{C}.$ are mixed together.

(b) How would you find the specific heat of a piece of iron?

3. (a) Describe two methods of finding the specific gravity of a liquid. Give a numerical example of each.

(b) A spoon is composed of German silver plated with silver; it weighs 20 grammes and its specific gravity is 8.85. The weight of silver on the spoon is 2 grammes and its specific gravity is 10.5. Find the specific gravity of the German silver.

4. (a) Describe three simple practicable experiments which show that the atmosphere exerts pressure. If the barometric height is 30.3 inches, and the specific gravity of mercury be 13.6, calculate the atmospheric pressure in pounds per square inch. (1 cubic foot of water = 62.5 pounds.)

(b) Mercury is poured into a uniform bent tube open at both ends, both branches being vertical. One end is then closed, its height above the mercury being 4 inches. Mercury is now poured into the open end until it rises one inch in the closed branch. Find the difference in level of the mercury surfaces. The barometer stands at 30.3 inches.

Education Department, Ontario.

Annual Examinations, 1907.

JUNIOR MATRICULATION.

EXPERIMENTAL SCIENCE.

Examiners: $\left\{ \begin{array}{l} \text{C. A. CHANT, PH.D.} \\ \text{F. B. KENRICK, PH.D.} \\ \text{W. H. PIERSOL, B.A.} \end{array} \right.$

PART B.—CHEMISTRY.

1. Explain what is meant by the following terms:—(a) a reducing agent, (b) an oxidizing agent, (c) a solution, (d) a chloride. Name a compound of chlorine which is not a chloride.

2. Give the properties and a method of preparation (*without* equations) of each of the following:—(a) nitric acid, (b) hydrogen, (c) nitrous oxide, (d) hydrogen chloride, (e) ammonia. What are the properties of the aqueous solutions of the last two substances?

3. Explain what is meant by the reacting weight (i.e. combining weight) of a substance? What is the reacting weight of water? Knowing that one reacting weight of water combines with one reacting weight of lime (which is 56 grammes), how much water would it take to slake 100 grammes of lime? How much water would it take to slake one ton of lime? ($H=1.01$ g., $O=16$ g.)

4. The equation expressing the formation of sulphur dioxide from sulphur and oxygen is $S + O_2 = SO_2$.

(a) How many litres of sulphur dioxide, at 760 mm. pressure and $17^\circ C.$, would be formed from 5 grammes of sulphur?

(b) What volume of oxygen would be used up (at the same pressure and temperature)?

(c) What is the per cent. composition by weight of sulphur dioxide?

($S=32$ g., $O=16$ g.)

Education Department, Ontario.

Annual Examinations, 1907.

JUNIOR MATRICULATION.

ARITHMETIC AND MENSURATION.

Examiners: $\left\{ \begin{array}{l} \text{W. H. BALLARD, M.A.} \\ \text{J. MATHESON, M.A.} \\ \text{W. PRENDERGAST, B.A.} \end{array} \right.$

1. Find the circulating decimal equal to the sum of $\cdot\dot{2}7$, $\cdot\dot{0}27$, and $\cdot\dot{5}38461$, and reduce it to a vulgar fraction in its lowest terms.

2. Find by contracted methods the value of:—

(a) $(\cdot3937)^3$ correct to 4 places of decimals,

(b) $180 \div 3\cdot1415926$ correct to 3 places.

3. What sum of money will amount to \$1000 in $4\frac{1}{2}$ years at 5 per cent. per annum, compound interest?

4. A grocer sold three-fourths of a consignment of strawberries at a profit of 30 per cent., one-fifth at a loss of 10 per cent., and found the rest unsaleable. Find his gain per cent. on the whole consignment.

5. Find, to two decimal places, the side of a square equal in area to a circle whose diameter is 23 feet.

6. What length of wire, 0·1 inch in diameter, can be made from a cubic foot of metal?

7. An investor pays $\frac{1}{8}$ per cent. brokerage in buying stock quoted at $192\frac{1}{2}$. If this stock pays an annual dividend of $10\frac{1}{2}$ per cent., what rate per cent. per annum interest does he receive for his money?

8. Find the proceeds of a note for \$570·60 drawn March 13 at 90 days and discounted, May 3, at 7 per cent.

Education Department, Ontario.

Annual Examinations, 1907.

JUNIOR MATRICULATION.

ENGLISH GRAMMAR AND RHETORIC.

Examiners: { A. R. BAIN, M.A.
W. S. W. McLAY, M.A.
M. W. WALLACE, PH.D.

1. Yet, doubtless, when the day of battle comes,
And the two hosts are marshall'd, and in Heaven
The golden-crested cock shall sound alarm,
And his black brother-bird from hence reply,
Longing will stir within my breast, though vain.
But not to me so grievous, as, I know,
To other Gods it were, is my enforced
Absence from fields where I could nothing aid ;
For I am long since weary of your storm
Of carnage, and find, Hermod, in your life
Something too much of war and broils, which make
Life one perpetual fight, a bath of blood.

Write out in full each of the clauses (principal and subordinate) in this passage. Give the grammatical functions of each subordinate clause, and point out accurately its relation in the sentence.

2. Explain the grammatical values and relations of the italicized words in the following sentences:—

- (a) I found him *buying* corn.
- (b) In your life there is *something* too much of war.
- (c) I would have come *but* that I was detained.
- (d) There is no one *but* believes it.
- (e) He ran ten *miles* in order to bring aid.

3. (a) Give the plural form of:—brother-in-law, genus, Governor-General, s, Mary, handful, Mussulman.

(b) Give, with their meanings, the Latin words from which the following English words are ultimately derived:—caldron, friar, foundry, rural, benevolent, diary, fiction, noxious.

[OVER]

4. Point out and correct the grammatical errors in the following sentences, explaining the nature of the error in each case:—

- (a) He believed, like his brother did, that everyone should look out for themselves: these kind of people are quite different to them who believe in the golden rule.
- (b) It don't make much difference who they appoint, for there is little doubt but what both candidates are very much attached to the party in power, and that neither of them are especially capable.
- (c) My brother and I shall do what we can not to aggravate him.
- (d) Everyone has their own opinion, but, between you and I, there is positive information that after he had drank the liquor he was seen laying on the street.

5. (a) Name the various branches of the Indo-European family of languages.

(b) To which of these does English belong?

(c) Name four modern languages which belong to the same branch as English.

(d) Name four characteristics of the Teutonic branch which distinguish it from other Indo-European languages.

6. Define the following terms and give an illustration of your answer in each case:—vowel-mutation, ethical dative, doublets, folk etymology, a synthetic language.

7. In the following sentences point out very briefly any rhetorical defects, and recast the sentences in such a way as to remove these defects:—

- (a) Having resolved to make the best of the situation, the difficulties seemed less serious and we pushed on, but sailing down the river, which is here very wide, the wind suddenly changed.
- (b) He left the house to wander in the woods to gain a livelihood as best he might, exposed to all sorts of weather, and ever regretting that he had given his children his whole fortune leaving nothing for himself.
- (c) He folded it and put it in his pocket and laid down once more and it was not referred to again. Which proved very clearly that he did not wish to discuss the question.
- (d) Iago was Othello's friend and in whom he placed the greatest confidence, Iago, however, was unworthy of this confidence.

8. Criticise (briefly) the rhetorical structure of the following paragraph :—

Royal persons have a fair possibility of living to a green old age, despite the activity of Anarchists and the uneasiness which the wearing of a crown is supposed to imply. King Christian of Denmark has just celebrated his eighty-fourth birthday. He has had no serious troubles in recent years, to be sure ; but his reign has not been altogether prosperous. The Danes have their social and economic problems, like the people of other countries ; and Denmark was badly beaten by Prussia and Austria some forty years ago, and forced to surrender Schleswig-Holstein to the avaricious German.

Education Department, Ontario.

Annual Examinations, 1907.

JUNIOR MATRICULATION.

ALGEBRA.

Examiners: $\left\{ \begin{array}{l} \text{W. H. BALLARD, M.A.} \\ \text{J. MATHESON, M.A.} \\ \text{W. PRENDERGAST, B.A.} \end{array} \right.$

1. Resolve into factors:—

- ✓ (a) $5a^2 - 10ab + 5b^2 - 20c^2$;
- (b) $5x^2 + 42x - 27$;
- (c) $(a+b)^3 - 1$;
- ✓ (d) $(x-3b)^3 - 4b^2x + 12b^3$.

2. Solve the equations:—

(a) $\frac{3x-2}{2x-3} - \frac{x+17}{x+10} = \frac{1}{2}$.

(b) $21y + 20x = 165,$
 $77y - 30x = 295.$

✓ (c) $\frac{3x}{a} + 2b(a-c) + \frac{x}{b} = c(a+b) + \frac{2x}{c}.$

3. Find the square root of:—

✓ $12a^3x - 26a^2x^2 + 25x^4 + 9a^4 - 20ax^3.$

4. Solve the equations:—

(a) $5x^2 - 9x - 4 = 0.$

(b) $5x - 2y = 12,$
 $25x^2 - 4y^2 = 96.$

5. I bought a horse and carriage for \$400. I sold the horse at a profit of 20 per cent., and the carriage at a loss of 4 per cent., and found that on the whole transaction I had gained 5 per cent. What was the original cost of the horse?

[OVER]

6. Mr. Gladstone was born in the year A.D. 1809. In the year A.D. x^2 he was $x-3$ years old. Find x .

7. The area of a rectangular field is half an acre; the perimeter is 201 yards; find the length and width.

8. Determine three numbers such that their sum is 9; the sum of the first, twice the second, and three times the third, 22; and the sum of the first, four times the second, and nine times the third, 58.

9. A pound of tea and three pounds of sugar cost \$1.20, but if sugar were to rise 50 per cent. and tea 10 per cent., they would cost \$1.40. Find the price of tea and sugar.

Education Department, Ontario.

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JUNIOR MATRICULATION.

ENGLISH COMPOSITION.

Examiners: { A. R. BAIN, M.A.
W. S. W. McLAY, M.A.
M. W. WALLACE, PH.D.

NOTE — *The candidate will write on ONE, and only one, of the following subjects.*

1. The story of Philip Ray.

(In order to make a good story, candidates may add details invented in harmony with the facts of *Enoch Arden*.)

2. Sugar-making.

3. The Battle of Philippi.

(Use Shakespeare's *Julius Caesar* as your *only* source of information.)

4. Resolved: That the Provincial Government should supply students of High Schools and Collegiate Institutes with free text books.

5. "Not once or twice in our rough island-story,
The path of duty was the way to glory."

Education Department, Ontario.

Annual Examinations, 1907.

JUNIOR MATRICULATION.

GEOMETRY.

Examiners : $\left\{ \begin{array}{l} \text{W. H. BALLARD, M.A.} \\ \text{J. MATHESON, M.A.} \\ \text{W. PRENDERGAST, B.A.} \end{array} \right.$

1. Prove that parallelograms on equal bases and between the same parallels are equal in area.

2. On a given straight line construct a segment of a circle which shall contain an angle equal to a given angle.

3. Find the locus of a point that moves equidistant from two given non-parallel straight lines.

4. (a) Show that the square on the side opposite an acute angle in any triangle is equal to the sum of the squares on the other two sides, diminished by twice the rectangle contained by either of these sides and the projection of the other on it.

(b) State this theorem for the case of the side opposite (i) an obtuse angle, (ii) a right angle.

5. Construct a parallelogram when the diagonals and one side are given.

6. Prove that the rectangles contained by the segments of two intersecting chords in any circle are equal.

7. If two triangles have an angle in the one equal to an angle in the other, and the sides about another pair of corresponding angles proportional, the remaining pair of corresponding angles are either equal or supplementary.

8. Construct a triangle similar to a given triangle, and having nine times the area of the given one.

9. Prove that the line joining the middle points of two sides of any triangle is parallel to the third side, and equal to half of it.

Education Department, Ontario.

Annual Examinations, 1907.

JUNIOR MATRICULATION.

ENGLISH POETICAL LITERATURE.

Examiners: { A. R. BAIN, M.A.
W. S. W. McLAY, M.A.
M. W. WALLACE, PH.D.

1. Point out as accurately as you can the connection in which *eight* of the following passages occur :—

- (a) Men at some time are masters of their fate.
- (b) Music that gentlier on the spirit lies,
Than tir'd eyelids upon tir'd eyes.
Music that brings sweet sleep down from the blissful skies.
- (c) As dear to me as are the ruddy drops
That visit my sad heart.
- (d) Meet is it changes should control
Our being, lest we rust in ease.
We all are changed by still degrees,
All but the basis of the soul.
- (e) He shall find the stubborn thistle bursting
Into glossy purples, which outredden
All voluptuous garden roses.
- (f) There are no tricks in plain and simple faith.
- (g) In sweet dreams softer than unbroken rest
Thou leddest by the hand thine infant Hope.
- (h) My heart doth joy, that yet in all my life
I found no man but he was true to me.
- (i) How dull it is to pause, to make an end,
To rust unburnish'd, not to shine in use !
- (j) How many ages hence
Shall this our lofty scene be acted o'er
In States unborn and accents yet unknown !

2. Quote eight successive lines from any *two* of the following poems :—

- (a) The Lotus Eaters ;
- (b) Ulysses ;
- (c) "You ask me, why, tho' ill at ease" ;
- (d) Ode on the Death of the Duke of Wellington.
- (e) Antony's speech over Caesar's body, beginning, "O,
pardon me, thou bleeding piece of earth." [OVER]

3. Using in each case about five lines, give in your own words the main thought of the following poems:—

- (a) Ulysses;
- (b) "You ask me, why, tho' ill at ease";
- (c) Ode to Memory.

4. Enoch's white horse, and Enoch's *ocean-spoil*
 In *ocean-smelling osier* and his face,
 Rough-redden'd with a thousand winter gales,
 Not only to the *market-cross* were known,
 But in the leafy lanes behind the *down*,
 Far as the *portal-warding lion-whelp*,
 And *peacock-yewtree* of the lonely *Hall*,
 Whose *Friday-fare* was Enoch's *ministering*.

Explain briefly and clearly the meaning of the italicized words and phrases in the above passage.

5. Explain briefly and in your own words the meaning of the following passages:—

- (a) I turn the trouble of my countenance
 Merely upon myself.
- (b) Thou, like an exorcist, hast conjured up
 My mortified spirits.
- (c) my misgiving still
 Falls shrewdly to the purpose.
- (d) I do find it cowardly and vile,
 For fear of what might fall, so to prevent
 The time of life.
- (e) All my engagements I will construe to thee,
 All the charactery of my sad brows.
- (f) his silvery hairs
 Will purchase us a good opinion
 And buy men's voices to commend our deeds.
- (g) but do not stain
 The even virtue of our enterprise,
 Nor th' insuppressive mettle of our spirits.

6. (a) Outline briefly, but in detail, the events in the play of *Julius Caesar*, beginning with the disagreement between Brutus and Cassius in the tent of Brutus, and concluding with Cassius' departure from the tent. (Act IV., Scene 2.)

(b) What traits of Brutus' character are emphasized in these scenes? Illustrate your answer, where possible, by specific references to the play.

(c) What traits of Cassius' character are brought out in the same scenes? Illustrate.

(d) Name four other occasions when Brutus and Cassius differed as to what was the best course to pursue.

- Foiled by our fellow-men, depressed, outworn,
 We leave the brutal world to take its way,
 And *Patience!* in another life, we say,
The world shall be thrust down, and we upborne.
 5 And will not, then, the immortal armies scorn
 The world's poor routed leavings? or will they
 Who failed under the heat of this life's day
 Support the fervors of the heavenly morn?
 No, no! the energy of life may be
 10 Kept on after the grave, but not begun;
 And he who flagged not in the earthly strife,
 From strength to strength advancing,—only he,
 His soul well knit, and all his battles won,
 Mounts, and that hardly, to eternal life.

(a) Give, in a single sentence, the main thought of this sonnet.

(b) What idea is negatived in the words "No, no!" (line 9)?

(c) Explain briefly, and in your own words, the following expressions:—"We leave the brutal world to take its way" (line 2); "the immortal armies" (line 5); "the world's poor routed leavings" (line 6); "the fervors of the heavenly morn" (line 8); "and that hardly" (line 14).

Education Department, Ontario.

Annual Examinations, 1907.

SENIOR TEACHERS.

MEDLÆVAL HISTORY.

Examiners: { A. R. BAIN, M.A.
W. S. W. McLAY, M.A.
M. W. WALLACE, PH.D.

NOTE.—*Six questions will constitute a complete paper, and only six are to be answered.*

1. Mention the acts of Clovis which have greatly influenced the subsequent history of Western Europe.
2. Point out the circumstances which led the early Bishops of Rome to exercise magisterial functions.
3. Write notes on the founding of the Holy Roman Empire, 800 A.D., under the following heads:—
 - (a) Mode of and reasons for Charlemagne's coronation as emperor;
 - (b) Result as affecting the relations of his successors to the popes.
4. Who were the parties to the Treaty of Verdun, 843 A.D.? Describe, in a general way, the geographical position of the kingdoms formed by it, and explain the practical continuation to the present of the lines of cleavage run at that time through Charlemagne's empire.
5. Account for the rise of feudalism, and explain briefly the mutual relations of lord and vassal.
6. Write notes on the Crusades, touching:—
 - (a) their origin and period of duration;
 - (b) the motives of the Crusaders;
 - (c) effect upon Western civilization.

[OVER]

7. Describe the conditions of life during the greater part of the mediæval period on the manorial estates in Western Europe, and the economic changes tending to the abolition of serfdom.

8. Write notes on the Franciscan and Dominican orders, touching :—

- (a) state of clergy and people which led to their founding;
- (b) purposes they were intended to serve;
- (c) conditions of the life which they undertook to live.

9. Describe briefly the efforts of the Hohenstaufen to establish their power in Italy. Point out the chief sources of the resistance they met and the importance of the final result.

10. What were the three chief difficulties encountered by the Capetian kings in fashioning the Kingdom of France? Point out the bearing upon one of these of the exploits of Joan of Arc.

Education Department, Ontario.

Annual Examinations, 1907.

SENIOR TEACHERS.

MINERALOGY.

Examiners: { C. A. CHANT, PH.D.
F. B. KENRICK, PH.D.
W. H. PERSOL, B.A.

1. Mention the characteristics by which coarse grained specimens of granite, syenite and gabbro may be distinguished from one another.

2. How is limestone usually formed? By what means may fossiliferous limestone have been converted into marble?

3. Name, in each case, one locality in the Province of Ontario where ore (a) of nickel, (b) of silver, (c) of copper is mined.

4. Explain the meaning of the following terms:— stratum, fossil, conglomerate, igneous rock.

5. Describe carefully how you would determine the following characteristics of minerals:—streak, hardness, specific gravity.

6. How would you distinguish between the two minerals in *any three* of the following pairs, by reference to such properties as hardness, lustre, colour, and streak:—

- (a) Quartz and calcite;
- (b) Galena and graphite;
- (c) Muscovite and gypsum;
- (d) Magnetite and hematite;
- (e) Chalcopyrite and pyrite?

7. Describe the processes by which dykes and veins may have been formed.

Education Department, Ontario.

Annual Examinations, 1907.

SENIOR TEACHERS, HONOUR AND SCHOLARSHIP
MATRICULATION.

TRIGONOMETRY.

Examiners: $\begin{cases} \text{W. H. BALLARD, M.A.} \\ \text{J. MATHESON, M.A.} \\ \text{W. PRENDERGAST, B.A.} \end{cases}$

1. Define the trigonometrical ratios of an angle less than 90° , and show that if one of these ratios be given, the others may be found.

2. Prove:—

$$\tan(A + B) = \frac{\tan A + \tan B}{1 - \tan A \tan B},$$

$$\cos 2A = \cos^2 A - \sin^2 A,$$

$$\sin C + \sin D = 2 \sin \frac{C + D}{2} \cos \frac{C - D}{2}.$$

3. If $\log 2 = .30103$, and $\log 3 = .4771213$, find the log of 5, 108, $\sqrt{6}$, $\frac{1}{3}$, .0012.

4. In any triangle, prove:—

$$a = c \cos B + b \cos C,$$

$$\cos A = \frac{b^2 + c^2 - a^2}{2bc},$$

$$\tan \frac{1}{2} A = \sqrt{\frac{(s-b)(s-c)}{s(s-a)}}$$

$$\tan A = \frac{a \sin C}{b - a \cos C}.$$

5. Show that the radii of the escribed circles of the triangle ABC are proportional to $\tan \frac{1}{2} A$, $\tan \frac{1}{2} B$, $\tan \frac{1}{2} C$.

6. Show how to solve a triangle having given two sides and the included angle.

[OVER]

7. In the triangle ABC the side BC is 567 yards, the angle $ABC = 60^\circ$, and the angle $BCA = 45^\circ$. Find AB and AC .

8. Find the angles of a triangle whose sides are 643, 764, 875, having given

$$L \tan 22^\circ 47' = 9.6232690, \text{ diff. for } 1' = 3537$$

$$L \tan 38^\circ 11' = 9.8956719, \text{ diff. for } 1' = 2600$$

$$L \tan 29^\circ 1' = 9.7440499, \text{ diff. for } 1' = 2979$$

$$\log 1141 = 3.0572856, \quad \log 498 = 2.6972293$$

$$\log 377 = 2.5763414, \quad \log 266 = 2.4248816$$

Education Department, Ontario.

Annual Examinations, 1907.

SENIOR TEACHERS.

BRITISH AND MODERN HISTORY.

Examiners : $\left\{ \begin{array}{l} \text{A. R. BAIN, M.A.} \\ \text{W. S. W. McLAY, M.A.} \\ \text{M. W. WALLACE, PH.D.} \end{array} \right.$

NOTE.—*Six questions will constitute a complete paper, three to be taken from each part.*

A.

1. Sketch the career of (a) Simon de Montfort, (b) Henry VII., pointing out the conditions of the country and the acts of Henry which combined to make him a despotic prince.

2. Give a brief account of the Acts of the Long Parliament from its first assembling to its dismissal by Cromwell.

3. Write notes on :—

(a) The Puritans ;

(b) The Court of High Commission, 1583 A.D. ;

(c) The Navigation Act, 1651 A.D.

4. In the reign of Charles II., what great principles were involved which led the king to such measures as the Declaration of Indulgence and the Treaty of Dover, and parliament to pass such acts as the Test Act and the Conventicle Act ?

B.

5. Narrate briefly the attempts made to found for itself a colonial empire, by each of the following countries :—Portugal, Spain, Holland, France, England. Give the present results of these efforts.

6. Trace briefly the fortunes of the Hohenzollern family from their first appearance to the end of the reign of Frederick the Great.

[OVER]

7. What were the principal objects sought by Richelieu in his state policy, the chief steps taken to secure these objects, and the consequences which resulted from his final success?

8. Enumerate some of the more glaring economic and social abuses existing in France during the eighteenth century, and point out the bearing which the philosophical and literary writings of the age had upon the attitude of the people towards these abuses.

Education Department, Ontario.

Annual Examinations, 1907.

SENIOR TEACHERS, HONOUR AND SCHOLARSHIP
MATRICULATION.

PHYSICS.

Examiners: { C. A. CHANT, PH.D.
F. B. KENRICK, PH.D.
W. H. PIERSOL, B.A.

NOTE.—*Senior Teachers will take PARTS A and B. Honour Matriculation and Scholarship candidates will take PARTS A and C.*

PART A.

(*For all candidates.*)

1. (a) Describe accurately, with diagram, a method of finding the acceleration of gravity. Explain where errors will likely occur and suggest practical means of diminishing or avoiding them.

(b) A balloon has been ascending vertically at a uniform rate for $4\frac{1}{2}$ seconds, and a stone, dropped from it then, reaches the ground in 7 seconds. Find the velocity of the balloon and the height from which the stone fell. ($g=32$.)

2. A light rod of length 3 feet has two equal weights attached to it, one 9 inches from one end, the other 15 inches from the other end, and it is supported by two vertical strings attached to its ends. If each string can support a tension of 112 pounds, what is the greatest possible magnitude of each of the two equal weights?

3. A block weighs 1000 pounds and rests on a horizontal plane, the coefficient of friction between the block and the plane being $\frac{1}{2}$. A rope is fastened to the block and is led over a pulley on the top of a post which is 5 feet high and 20 feet from the block. The direction of the rope passes through the centre of gravity of the block. What force must be exerted on the rope in order to move the block?

[OVER]

4. A tank has a rectangular base, 30 by 50 centimetres, and vertical sides. It is filled to a depth of 30 centimetres with water. Find the whole pressure due to the water on the base and on each side. If a block of ice weighing 20 kilograms is put in the water find the pressures.

PART B.

(For Senior Teachers only.)

5. (a) Define resultant vertical pressure.

(b) A spherical metal shell, of which the internal and external diameters are 9·4 and 10 centimetres, respectively, floats in water just half immersed. Find the specific gravity of the metal.

6. A uniform board, one foot square and weighing 5 pounds, is divided into 9 equal small squares, at the centre of each of which is placed a weight, the magnitudes being as follows:—in the first row, 4, 9, 2 pounds; in the second row, 3, 5, 7 pounds; in the third row, 8, 1, 6 pounds. Find the centre of gravity of the board and weights.

7. A cylindrical diving-bell 9 feet high is lowered into a lake until the top of the bell is 11 feet below the surface. If no air is pumped in, find how high the water rises in the interior. (Water barometer stands at 34 feet.)

PART C.

(For Honour Matriculation and Scholarship Candidates only.)

5. A galvanic cell has an electromotive force of 1·08 volts and internal resistance of 0·5 ohms, and the terminals are joined by two wires, in parallel, of resistance 1 ohm and 2 ohms, respectively. What is the current in each and what is the ratio between the amounts of heat developed in the wires?

6. (a) The electro-chemical equivalent of copper is 0·000329. Explain this statement.

(b) A tangent galvanometer and a copper voltameter were connected in series and included in the same circuit. A constant current was sent through the circuit for 30 minutes and the weight of copper deposited was found to be 0·272 gramme. If the deflection of the needle was 30° calculate the *reduction factor* of the instrument (i.e. find the number which when multiplied into the tangent of the angle of deflection gives the current in amperes).

7. Describe the two ordinary systems of electric lighting. Use diagrams to show the complete circuits, including the generators and the lamps on the street or in a house.

Education Department, Ontario.

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SENIOR TEACHERS, HONOUR AND SCHOLARSHIP MATRICULATION.

CHEMISTRY.

Examiners: { C. A. CHANT, PH.D.
F. B. KENRICK, PH.D.
W. H. PIERSON, B.A.

1. Explain briefly on what principle the elements are arranged in Mendelejeff's classification (Periodic System). Point out the similarities in the properties of the elements calcium, strontium and barium, and their compounds. Why are these elements said to be base-forming elements?

2. Describe in detail (without equations) either a commercial or a convenient laboratory method for preparing the following: chlorine (from common salt), solid sodium hydroxide (from common salt), concentrated nitric acid (from nitre), dry calcium carbonate (from calcium chloride).

3. If A is in equilibrium with B , and it is known that the change of A into B is accompanied by an increase in volume and an evolution of heat, what will be the effect (a) of increasing the pressure, (b) of raising the temperature? Give an example of chemical equilibrium and state clearly the effect of increase of pressure and of rise of temperature, in the case you select.

4. The combustion of marsh gas by oxygen, with formation of carbon dioxide gas and liquid water, may be represented as follows:— $\text{CH}_4 + 2\text{O}_2 = \text{CO}_2 + 2\text{H}_2\text{O}$.

What information does this convey as to (a) the proportions by weight in which the substances react, (b) the proportions by volume in which they react, (c) the percent. composition by weight of marsh gas? ($\text{C} = 12 \text{ g.}$, $\text{H} = 1.01 \text{ g.}$, $\text{O} = 16 \text{ g.}$)

5. (a) Write the chemical formulae of the following:—calcium carbonate, manganous chloride, potassium permanganate, chromic anhydride, phosphine, aluminium hydroxide, aluminium sulphate, oxygen, stannic oxide, magnetic oxide of iron, ferric oxide, washing soda, nitrous oxide gas.

(b) In which of the above cases is the density of the substance indicated by the formula? How is it indicated?

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SENIOR TEACHERS, HONOUR AND SCHOLARSHIP
MATRICULATION.

ALGEBRA.

Examiners: $\left\{ \begin{array}{l} \text{W. H. BALLARD, M.A.} \\ \text{J. MATHESON, M.A.} \\ \text{W. PRENDERGAST, B.A.} \end{array} \right.$

1. Solve the equations:—

$$(a) \quad \begin{aligned} x^3 + y^3 &= 351, \\ x^2 - xy + y^2 &= 39. \end{aligned}$$

$$(b) \quad \begin{aligned} \frac{1}{x} - \frac{1}{y} &= \frac{1}{12}, \\ \frac{4}{x^2} + \frac{6}{y^2} &= \frac{5}{12}. \end{aligned}$$

2. The expenses of a charitable institution are partly constant and partly vary as the number of inmates. When the number of inmates is 960, and 3000, the expenses are respectively \$561 $\frac{1}{3}$, and \$900. What are the expenses when the number of inmates is 1000?

567.97

3. The seventh term of an arithmetical progression is 30 and the thirteenth is 42. Find the first term and the sum of 12 terms.

4. Sum to n terms the series

$$1 + 3 + 7 + 15 + \dots + (2^r - 1).$$

5. In a geometric series, show that the product of any two terms equidistant from a given term is always the same.

6. If a, b, c , are in harmonic progression, and half the middle term be subtracted from each, what is the nature of the resulting progression?

7. How many permutations can be made of the letters in the word *sirocco* taken all together?

[OVER]

8. In a group of 12 hockey players only one can keep goal: in how many ways may a team of 7 be chosen from the 12 so as to include the goal keeper in every choice?

9. Find the coefficient of x^n in the expansion of $(1+x)(1-x)^{-4}$

10. Find the sum of the first $n+1$ coefficients in the expansion of $(1-x)^{-3}$.

11. Apply the Binomial Theorem to prove that

$$1 + \frac{3}{4} + \frac{3 \cdot 5}{4 \cdot 8} + \frac{3 \cdot 5 \cdot 7}{4 \cdot 8 \cdot 12} + \dots \text{ad inf.} = \sqrt{8}$$

12. The executors of an estate have \$20,000 with which they desire to purchase an annuity that shall run 10 years. If money be worth 5% per annum, find the yearly value of the annuity which can be purchased. ($1.05^{10} = 1.62889$)

2577.72

$$\sqrt{8} = 2^{\frac{3}{2}} = \left(\frac{1}{2}\right)^{-\frac{3}{2}} = \left(1 - \frac{1}{2}\right)^{-\frac{3}{2}}$$

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SENIOR TEACHERS, HONOUR AND SCHOLARSHIP
MATRICULATION.

ENGLISH COMPOSITION.

Examiners: { A. R. BAIN, M.A.
W. S. W. McLAY, M.A.
M. W. WALLACE, PH.D.

NOTE.—*The candidate will write on ONE, and only one, of the following subjects.*

1. A Description of a Valley as seen from a neighbouring Hill-top.

2. A Harvesting Scene.

(Candidates will limit their description to the scene which meets the eye in the field.)

3. The Character of Brutus as portrayed in Shakespeare's *Julius Caesar*.

4. An Account of a Fishing Trip.

(Confine your narrative to your experiences while actually on the stream.)

5. The Municipal Ownership and Operation of Street Railways in Ontario Cities and Towns.

Education Department, Ontario.

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SENIOR TEACHERS, HONOUR AND SCHOLARSHIP
MATRICULATION.

GEOMETRY.

Examiners: $\left\{ \begin{array}{l} \text{W. H. BALLARD, M.A.} \\ \text{J. MATHESON, M.A.} \\ \text{W. PRENDERGAST, B.A.} \end{array} \right.$

1. Describe a circle to touch three given straight lines, no two of which are parallel.

2. If three straight lines are proportional, the first is to the third as the area of any rectilineal figure described on the first is to the area of a similar figure described on the second.

3. Find the locus of a point that moves so that the tangents from it to two given circles are equal.

4. ABC is an isosceles triangle, and D is any point in the base BC . Show that the difference between the squares on AB and AD is equal to the rectangle contained by BD and DC .

5. AB is a line and C a point on it. Show that $AC^2 + BC^2$ is a minimum, and $AC \cdot BC$ a maximum, when C is the middle point of AB .

6. The inscribed circle of the triangle ABC and the escribed circle opposite the vertex A touch BC in the points P and Q . Prove that (i) $BP = CQ$, and (ii) PQ is equal to the difference between AB and AC .

7. The points (x_1, y_1) , (x_2, y_2) , and (x_3, y_3) are the vertices of a triangle. Find the coordinates of the point that divides the median from any vertex in the ratio 2:1, the longer segment being towards the vertex.

8. (a) Derive the equation $x \cos a + y \sin a = p$ for the straight line.

(b) Find the perpendicular distance from $(6, -3)$ to the line $3x - 2y = 5$.

9. $x^2 + y^2 - 2x + 4y - 4 = 0$ is a circle. Find:—

(a) the coordinates of the centre;

(b) the length of the radius;

(c) the length of the tangent from $(2, 4)$.

Education Department, Ontario.

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SENIOR TEACHERS, HONOUR AND SCHOLARSHIP MATRICULATION.

ENGLISH POETICAL LITERATURE.

Examiners: { A. R. BAIN, M.A.
W. S. W. McLAY, M.A.
M. W. WALLACE, PH.D.

1. (a) Before the speech of Brutus the citizens cry, "We will be satisfied; let us be satisfied"; at its close, "Live, Brutus, live, live", "Bring him in triumph home to his house", etc. Evidently they are satisfied. Mention the details of the speech that may be supposed to have produced their change of attitude.

(b) Outline in an orderly manner the main points in Antony's oration.

(c) Point out the oratorical devices used by Antony to strengthen the effect of his appeal to the people.

2. (a) Show how, in the scene immediately preceding the Quarrel Scene, Shakespeare prepares the reader for the attitude adopted by Brutus towards Cassius in the latter scene.

(b) In the Quarrel Scene, indicate features of the character of Brutus consistent with what the reader already knows of him.

(c) Mention incidents of the quarrel that tend (i) slightly to lessen admiration of Brutus, and (ii) to raise Cassius in the reader's estimation.

3. (a) Indicate the four groups into which the persons in *A Midsummer Night's Dream* are divided, and account for the presence of each of the four groups in the wood near Athens.

(b) Describe the presentation before Theseus and Hippolyta of "the tedious brief scene of young Pyramus and his love Thisbe."

4. Mention the features of the *Ode on the Death of the Duke of Wellington* that have made it interesting to you, illustrating your points by definite reference or quotation. [OVER]

5. Quote *one* of the following:—

- (a) There lies the port ; the vessel puffs her sail :
There gloom the dark broad seas. My mariners,
(Sixteen additional consecutive lines.)
- (b) Lovers and madmen have such seething brains,
Such shaping fantasies, that apprehend,
(Fifteen additional consecutive lines.)
- (c) A stanza from *each* of the following:— Sweet and
Low: The Splendour Falls on Castle Walls ; Tears,
Idle Tears ; Ask Me No More.
- (d) “ Between the acting of a dreadful thing, etc.” (six additional lines); *and* “There is a tide in the affairs of men, etc.” (six additional lines); *and* “And whether we shall meet again I know not, etc.” (four additional lines).

6. Give the meaning of the italicised words in the following:—

- (a) And here am I, and *wood* within this wood
Because I cannot meet my *Hermia*.
- (b) Skim milk, and sometimes labour in the *quern*,
And *bootless* make the breathless housewife churn,
And sometime make the drink *to bear no barm*.
- (c) Churl, upon thy eyes I throw
All the power this charm doth *owe*.
- (d) But hast thou yet *latch'd* the Athenian's eyes
With the love juice, as I bid thee do ?
- (e) *Love takes the meaning in love's conference*.
- (f) And is it *physical*
To walk unbraced, and suck up the *humours*
Of the dank morning.
- (g) If Caesar hide himself, shall they not whisper,
“Lo, Caesar is afraid” ?
Pardon me, Caesar ; for my dear, dear love
To your *proceeding* bids me tell you this ;
And reason to my love is liable.
- (h) *For all the past of Time reveals*
A bridal-dawn of thunder-peals,
Whenever Thought hath wedded Fact.

7. Indicate with precision the connection in which *five* of the following passages occur:—

- (a) So quick bright things come to confusion.
- (b) Our sons inherit us : our looks are strange :
And we should come like ghosts to trouble joy.

- (c) Enjoy the honey-heavy dew of slumber :
Thou hast no figures nor no fantasies,
Which busy care draws in the brains of men.
- (d) There he sat down gazing on all below :
There did a thousand memories roll upon him,
Unspeakable for sadness.
- (e) The best in this kind are but shadows ; and the worst are no
worse, if imagination amend them.
- (f) O, that a man might know
The end of this day's business ere it come !
But it sufficeth that the day will end,
And then the end is known.
- (g) Thou art as wise as thou art beautiful.

Education Department, Ontario.

ANNUAL EXAMINATIONS, 1907.

SENIOR TEACHERS, HONOUR AND SCHOLARSHIP
MATRICULATION.

LATIN AUTHORS, GRAMMAR, AND SIGHT TRANSLATION.

Examiners: { W. H. ALEXANDER, PH.D.
G. W. JOHNSTON, PH.D.
J. MACNAUGHTON, M.A.

NOTE.—*Senior Teachers will take parts A and B. Honour Matriculation and Scholarship candidates will take parts A and C.*

A.

(For all candidates.)

1. Translate into English:—

(a) Satis mihi multa verba fecisse videor, quare esset hoc bellum genere ipso necessarium, magnitudine periculosum; restat, ut de imperatore ad id bellum deligendo ac tantis rebus praeficiendo dicendum esse videatur.

Utinam, Quirites, virorum fortium atque innocentium copiam tantam haberetis, ut haec vobis deliberatio difficilis esset, quemnam potissimum tantis rebus ac tanto bello praeficiendum putaretis! Nunc vero cum sit unus Cn. Pompeius, qui non modo eorum hominum, qui nunc sunt, gloriam, sed etiam antiquitatis memoriam virtute superarit, quae res est, quae cuiusquam animum in hac causa dubium facere possit?

(b) Qua re omnes te, qui haec salva esse volumus, et hortamur et obsecramus ut vitae tuae et saluti consulas; omnesque tibi, ut pro aliis etiam loquar quod de me ipse sentio, quoniam subesse aliquid putas quod cavendum sit, non modo excubias et custodias, sed etiam laterum nostrorum oppositus et corporum pollicemur.

2. Parse fully, being careful to explain the syntax and also to give the principal parts of verbs:—*deligendo*, *quemnam*, in (a); *subesse*, *cavendum sit*, in (b).

[OVER]

3. Account for the mood and tense of *esset* (l. 1), *haberetis*, *esset* (l. 6); the mood of *possit* in (a); and the syntax of *rebus* in (a), *saluti*, *laterum*, in (b).

4. *quemnam* *putaretis* in (a). What is the grammatical function of this clause? Explain the mood of *putaretis*.

5. (a) *haec (salva esse)* in (b). What has the speaker in mind?
(b) *vitae tuae* *consulas*. What reason existed for this appeal?

6. Translate into English:—

(a) Heu nihil invitis fas quemquam fidere divis!
ecce trahebatur passis Priameia virgo
crinibus a templo Cassandra adytisque Minervae,
ad caelum tendens ardentia lumina frustra,
lumina, nam teneras arcebant vincula palmas.
Non tulit hanc speciem furiata mente Coroebus,
et sese medium iniecit periturus in agmen.
Consequimur cuncti et densis incurrimus armis.
Hic primum ex alto delubri culmine telis
nostrorum obruimur, oriturque miserrima caedes
armorum facie et Graiarum errore iubarum.

(b) Vester, Camenae, vester in arduos
tollor Sabinos, seu mihi frigidum
Praeneste seu Tibur supinum
seu liquidae placuere Baiae.
Vestris amicum fontibus et choris
non me Philippis versa acies retro,
devota non exstinxit arbos,
nec Sicula Palinurus unda.
Utcunque mecum vos eritis, libens
insanientem navita Bosporum
tentabo et urentes harenas
litoris Assyrii viator.

(c) Iam veris comites, quae mare temperant,
impellunt animae linthea Thraciae;
iam nec prata rigent nec fluvii strepunt
hiberna nive turgidi.
Nidum ponit, Ityn flebiliter gemens,
infelix avis et Cecropiae domus
aeternum opprobrium, quod male barbaras
regum est ultra libidines.
Dicunt in tenero gramine pinguium
custodes ovium carmina fistula
delectantque deum cui pecus et nigri
colles Arcadiae placent.

7. In 6 (a):—

(a) Explain the syntax of *divis, periturus*.

(b) Give the principal parts of *obruimur, oritur*.

(c) Scan the second line and the last two, marking all long quantities and indicating the feet and the caesura.

(d) To what does the speaker refer in the first line and in the last line?

8. In 6 (b):—

(a) Write a note sufficient to show the meaning of the extract and to explain (briefly) the references.

(b) Scan the last stanza, marking all long quantities and indicating the feet. What is the metre?

B.

(For Senior Teachers only.)

9. Translate into idiomatic English:—

Posteaquam id obstinate sibi negari vidit, omni spe impetrandi adempta, principes Galliae sollicitare, sevocare singulos hortarique coepit, uti in continenti remanerent; metu territare: non sine causa fieri, ut Gallia omni nobilitate spoliaretur; id esse consilium Caesaris, ut, quos in conspectu Galliae interficere vereretur, hos omnes in Britanniam traductos necaret; fidem reliquis interponere, iusiurandum poscere, ut, quod esse ex usu Galliae intellexissent, communi consilio administrarent.

10. Parse fully *impetrandi, adempta*, explaining the syntax and giving the principal parts.

11. Translate into English:—

BATTLE OF PHARSALUS.

Inter duas acies tantum erat relictum spatii, ut satis esset ad concursum utriusque exercitus. Sed Pompeius suis praedixerat ut Caesaris impetum exciperent, neve se loco moverent. Id admonitu C. Triarii fecisse dicebatur ut primus excursus nostrorum infringeretur. Atque levius casura esse pila sperabat, in loco retentis militibus, quam si ipsi immissis telis occurrissent; simul fore ut duplicato cursu Caesaris milites exanimarentur (*anima = breath*) et lassitudine conficerentur. Sed milites, dato signo, cum infestis pilis procucurrissent, atque animadvertissent non concurri a Pompeianis, usu periti ac superioribus pugnis exercitati, sua sponte cursum represserunt, et ad medium fere spatium constiterunt, ne consumptis viribus appropinquarent. Parvo intermisso temporis spatio ac rursus renovato cursu, pila miserunt, celeriterque, ut erat praeceptum a Caesare, gladios strinxerunt.

[OVER]

C.

(For Honour Matriculation and Scholarship candidates only.)

9. "Sed ad unum tamen omnia deferri non oportere" (sc. dicit). What was Cicero's reply to Hortensius? Examine the position of both from the standpoint of public policy.

10. Translate into Latin:—It is not easy to say how bitterly Rome is hated by foreign countries.

11. Derive and distinguish in meaning *templum* and *adytum*.

12. Write brief notes on the syntax or form of the words in italics:—

(a) Civitates omnes cuncta *Asia* auxilium expectant.

(b) *Nolite* dubitare quin huic uni *credatis* omnia.

(c) Sensit medios *delapsus* in hostes. (Quote or cite a rather close parallel from Horace.)

(d) Hic, unde vitam *sumeret* nescius
pacem *duello* miscuit.

(e) Fertur . . . ut *capitis minor humi* posuisse voltum.

(f) (Vitulus) qua notam duxit niveus *videri*,
cetera fulvus.

13. Translate into English:—

Ac, si mihi nunc de rebus gestis esset nostri exercitus imperatorisque dicendum, plurima et maxima proelia commemorare possem; sed non id agimus. Hoc dico: si bellum hoc, si hic hostis, si ille rex contemnendus fuisset, neque tanta cura senatus et populus Romanus suscipiendum putasset neque tot annos gessisset neque tanta gloria L. Lucullus, neque vero eius belli conficiendi negotium tanto studio populus Romanus ad Cn. Pompeium detulisset. Cuius ex omnibus pugnis, quae sunt innumera-biles, vel acerrima mihi videtur illa, quae cum rege commissa est et summa contentione pugnata. Qua ex pugna cum se ille eripuisset et Bosporum confugisset, quo exercitus adire non posset, etiam in extrema fortuna et fuga nomen tamen retinuit regium. Itaque ipse Pompeius regno possesso, ex omnibus oris ac notis sedibus hoste pulso, tamen tantum in unius anima posuit, ut, cum omnia quae ille tenuerat, sperarat, victoria possideret, tamen non ante quam illum vita expulit, bellum con-fectum iudicaret.

Education Department, Ontario.

Annual Examinations, 1907.

SENIOR TEACHERS, HONOUR AND SCHOLARSHIP
MATRICULATION.

LATIN COMPOSITION.

Examiners: { W. H. ALEXANDER, PH.D.
G. W. JOHNSTON, PH.D.
J. MACNAUGHTON, M.A.

NOTE.—*Senior Teachers will take parts A and B. Honour Matriculation and Scholarship candidates will take parts A and C.*

A.

(For all candidates.)

Translate into Latin:—

- (a) The ships were detained by adverse winds eight miles away from that spot.
- (b) The soldiers gathered around any flag they came across.
- (c) He complained that they had made war upon him without provocation.
- (d) Though he had lost twelve ships, he contrived to make a comfortable voyage with the remainder.
- (e) Having no place of refuge, they speedily fell into the hands of Labienus.
- (f) He begged hard to be left at home because he was unaccustomed to sailing and was afraid of the sea.
- (g) Caesar sent Volusenus to discover what was the size of the island and the character of its inhabitants.
- (h) Who would have supposed that such an undertaking could be finished in one year.

B.

(For Senior Teachers only.)

Translate into Latin:—

The Morini who were in possession of the harbours from which he meant to cross over into Britain, sent ambassadors to Caesar to apologize for the policy they had followed in the past, and to promise that they would obey his orders in the future.

[OVER]

They were only barbarians, they said, and had acted in ignorance when they had ventured to make war on the Roman people. Caesar thought their overtures were very opportune for him. He did not wish to leave an enemy behind him; the season of the year gave him no opportunity for military operations; in his eagerness to explore the unknown island, he was very unwilling to occupy himself with such trifling matters. Accordingly he required a large number of hostages from them, and when these were brought to him, he accepted their allegiance. But as he was returning from Britain, where he had no very brilliant success, it happened that two transports with three hundred soldiers on board, unable to make harbour along with the rest of his fleet, were driven a little farther down the coast. The soldiers landed and were hastening to camp when suddenly the Morini who had been left quite submissive a short time before, tempted by the prospect of plunder, surrounded them and bade them lay down their arms if they did not wish to have their throats cut.

C.

(For Honour Matriculation and Scholarship candidates only.)

Translate into Latin:—

Mithridates had collected a great and excellently equipped force and was hotly engaged in the siege of Cyzicus when Lucullus appeared upon the scene. The Roman general speedily raised the siege, defeated the king in many battles, took Sinope and Amisus, in which he had palaces abundantly stored with all manner of splendid furniture, along with many other cities, opened up Pontus, which had hitherto been completely closed against them, to the Roman arms, and after stripping his royal adversary of his native and ancestral kingdom, drove him forth to beg for aid from foreign kings and nations. It was a magnificent triumph gained by the valour, constancy, and talent of Lucullus. But though Mithridates was conquered he was not crushed. Like Medea, once a fugitive from that same Pontus, he took care to scatter upon his trail, the means of restraining the impetuosity of pursuit. While the Romans were engaged in plundering the untold mass of gold and silver and precious objects which he had amassed, his heritage from his ancestors and the spoils of all Asia, he slipped out of their hands and took refuge at the court of Tigranes, King of Armenia. Here he was sympathetically received, heartened in the hour of his despair, and rescued from the ship-wreck of his fortunes. The name of King, as history shows us it has often done, acted like a charm to draw the pity and the power of kings and their subjects to the side of fallen greatness.

Education Department, Ontario.

Annual Examinations, 1907.

HONOUR AND SCHOLARSHIP MATRICULATION.

ANCIENT AND BRITISH HISTORY.

Examiners : { A. R. BAIN, M.A.
W. S. W. McLAY, M.A.
M. W. WALLACE, Ph.D.

1. Write notes on :—
 - (a) the life and achievements of Cardinal Wolsey ;
 - (b) the career and political aim of Wentworth, Earl of Strafford.
2. Describe the domestic and foreign policy of Sir Robert Walpole, and point out in what manner English constitutional practice and political life were influenced by that statesman.
3. What events led to the Seven Years' War ? Show how British interests were affected by its course and outcome.
4. State the changes effected in England during the eighteenth century in agriculture and in manufacturing industries, and the results of such changes.
5. Under what circumstances did Sparta capture Thebes in 383 B.C. ? Explain the latter's subsequent rise to a short-lived supremacy in Greece. Why did Athens, Sparta, and Thebes in turn fail to weld the Grecian states into a united people ?
6. What led to the struggle between Persia and Greece, and what general human interests were at stake in the contest ?
7. Explain the commanding position held by the Senate in the Government of Rome from the Samnite wars to the age of the Gracchi, and give the principal causes of its declining importance after the latter period.
8. Compare the legislation of Caius Gracchus with the constitutional arrangements made by Sulla.
9. Write notes on the causes, course and result of the First Punic War.

Education Department, Ontario.

Annual Examinations, 1907.

SENIOR TEACHERS, HONOUR AND SCHOLARSHIP
MATRICULATION.

FRENCH AUTHORS, GRAMMAR AND SIGHT TRANSLATION.

Examiners: { J. W. G. ANDRAS, PH.D.
P. EDGAR, PH.D.
J. SQUAIR, B.A.

A.

1. Translate into English:—

Elle franchissait d'un saut de grands torrents, qui l'éclaboussaient au passage de poussière humide et d'écume. Alors, toute ruisselante, elle allait s'étendre sur quelque roche plate et se faisait sécher par le soleil. . . . Une fois, s'avancant au
5 bord d'un plateau, une fleur de cytise aux dents, elle aperçut en bas, tout en bas dans la plaine, la maison de M. Seguin avec le clos derrière. Cela la fit rire aux larmes.

“Que c'est petit, dit-elle; comment ai-je pu tenir là dedans?”

10 Pauvrette! de se voir si haut perchée, elle se croyait au moins aussi grande que le monde. . . .

2. Explain the form of *toute* (l. 3).

3. Write in the third person singular the conditional, the present subjunctive, and the imperfect subjunctive of the following verbs:— *allait* (l. 3), *s'étendre* (l. 3), *faisait* (l. 4), *aperçut* (l. 5), *rire* (l. 7), *pu* (l. 8), *tenir* (l. 8), *croyait* (l. 10).

B.

4. Translate into English:—

POITRINAS.—Ça ne te regarde pas. . . . Dis-moi, quand on laboure dans ce pays-ci, qu'est-ce qu'on trouve?

JEAN.—Où ça?

POITRINAS.—Derrière la charrue.

5 JEAN.—Dame! on trouve des vers blancs.

POITRINAS.—Je te parle d'antiquités. . . , de fragments gallo-romains.

[OVER]

JEAN.—Ah ! monsieur, nous ne connaissons pas ça.

POITRINAS.—Je profiterai de mon séjour pour faire faire
10 quelques fouilles. J'ai constaté, sur ma carte des Gaules, la
présence d'une voie romaine à Arpajon.

JEAN, *étonné*.—Oui ! . . .

POITRINAS.—Vois-tu, moi, je suis doué. . . j'ai du flair. . . je
n'ai qu'à regarder un terrain, et je dis tout de suite : "Il y a
15 du romain là-dessous !"

JEAN, *abrutí*. . . Oui. . . (*A part.*) Qu'est-ce que cet
homme-là ?

BLANCHE, *entrant par le premier plan à droite ; à part*.
—Impossible de retrouver ce saladier.

20 JEAN.—Ah ! voilà mademoiselle. (*Il remonte au fond,*
près du buffet.)

BLANCHE.—Monsieur Poitrinas !

POITRINAS, *saluant*.—Mademoiselle. . .

BLANCHE.—Quelle bonne surprise ! . . . et que mon père sera
25 heureux de vous voir !

POITRINAS.—Oui. . . je lui apporte une nouvelle. . . considér-
able.

BLANCHE.—Monsieur Edmond, votre fils, n'est pas venu
avec vous ?

30 POITRINAS.—Non, dans ce moment-ci il est affligé d'une
entorse.

BLANCHE.—Ah ! quel dommage !

POITRINAS.—C'est un peu ma faute. J'avais pratiqué des
fouilles au bout du parc, sans prévenir personne. . . et le soir,
35 il est tombé dedans. (*Consolé.*) Mais j'ai trouvé un manche
de couteau du troisième siècle.

5. State what is meant by *gallo-romains* (ll. 6-7).

6. Explain the difference between *apporter*, *amener*, *emmener*.

7. Give the French for:— The end of the day. The end of
the garden.

C.

8. Translate into English:—

(a) Ce qui l'empêchait alors de s'orienter, c'était un brouil-
lard qui s'élevait avec la nuit, un de ces brouillards des soirs
d'automne, que la blancheur du clair de lune rend plus vagues
et plus trompeurs encore. Les grandes flaques d'eau dont les
5 clairières sont semées exhalaient des vapeurs si épaisses que,
lorsque la Grise les traversait, on ne s'en apercevait qu'au
clapotement de ses pieds et à la peine qu'elle avait à les tirer
de la vase.

(b) Je ne veux pas que vous vous dérangiez, reprit Ger-
10 main, vous avez peut-être affaire ici ; moi je m'ennuie un peu
de voir danser et de ne rien faire. Je vais voir vos bêtes, et
je vous trouverai tantôt chez vous.

Là-dessus Germain s'esquiva et se dirigea vers les prés, où
Léonard lui avait, en effet, montré de loin une partie de son
15 bétail. Il était vrai que le père Maurice en avait à acheter,
et Germain pensa que s'il lui ramenait une belle paire de
bœufs d'un prix modéré, il se ferait mieux pardonner d'avoir
manqué volontairement le but de son voyage.

9. Give the plural of *bétail* (l. 15).

10. Write the present indicative in full of *veux* (l. 9), *reprit*
(l. 9), *m'ennuie* (l. 10), *voir* (l. 11).

D.

11. Translate into English :—

Tantôt nous marchions dans des routes bordées de murs de
chaque côté, tantôt dans des sentiers tracés à travers des vignes
et des vergers, tantôt dans des chemins ombragés par d'énormes
châtaigniers dont l'épais feuillage, interceptant l'air et la lumière,
ne laissait pousser sous son couvert que des mousses veloutées.
A chaque pas, dans ces routes et ces chemins, s'ouvrait une grille
en fer ou une barrière en bois, et alors on apercevait des allées
de jardin bien sablées, serpentant autour de pelouses plantées ça
et là de massifs d'arbustes et de fleurs ; puis, cachée dans la
verdure, s'élevait une maison luxueuse ou une élégante maison-
nette enguirlandée de plantes grimpantes ; et presque toutes,
maisons comme maisonnettes, avaient, à travers les massifs
d'arbres ou d'arbustes, des points de vue habilement ménagés sur
le lac éblouissant et son cadre de sombres montagnes.

Education Department, Ontario.

Annual Examinations, 1907.

SENIOR TEACHERS, HONOUR AND SCHOLARSHIP
MATRICULATION.

FRENCH COMPOSITION.

Examiners : { J. W. G. ANDRAS, PH.D.
P. EDGAR, PH.D.
J. SQUAIR, B.A.

A.

Translate into French :—

1. That gentleman had lived two years in France before he came to the United States.

2. We had been living in that house for two years at the time of his arrival.

3. When they have seen all the pictures in the gallery they are going to leave the town.

4. That boy is lazy. He will often sleep till ten o'clock.

5. A dictionary is a book which is used to explain the meaning of words.

6. Could you show me a grammar which has all the rules ?

7. I am looking for a house which is large enough for seven people.

8. Do you know any man who can move an audience more than he ?

9. The two armies fought well, but the stronger won the day.

10. We cannot wait ; something must be done ; his life is at stake.

11. Go away. We cannot be friends, but I have no grudge against you.

12. I have been working hard all day and I am tired out.

13. My neighbour told me that he was to leave on the next day.

14. The master tells the pupils that they ought not to be so idle.

15. We ought not to have gone away before the others arrived.

[OVER]

16. When do you begin? I am to begin as soon as my brother has finished.

17. We were informed that the ship was to sail at noon on Saturday.

18. I did not like your conduct. Such things are not done in good society.

19. Men who build houses and barns are called carpenters.

20. A robbery was committed in the bank, but the thief was caught.

21. Whatever the conditions are I cannot accept them without reflecting on them.

22. Whoever that person is, I am sure that he is no gentleman.

23. Whenever we saw them they were always very busy.

24. Wherever one may be, one will always find that politeness is useful.

B.

Translate into French :—

Perrette was going to market with a pot of milk on her head. She said to herself, "I shall sell my milk at the market. With the money I shall buy a dozen of eggs. I shall take the eggs home and I shall have a dozen chickens. When the chickens are large and fat they will bring me a lot of money. Then I shall buy a little pig and after having sold it I shall buy a cow. The cow will give me milk, and from the milk I shall make so much butter that I shall become rich and shall have a nice silk dress, a gold watch and a feather in my hat. Then perhaps I shall get married and shall be a fine lady living in a grand house, and shall have servants, horses and carriages. O how happy I shall be! And I shall be so kind to the poor! Nobody will be unhappy any more. Everybody will have enough to eat and wear." In her joy she forgot that there was a milk jug on her head and it fell to the ground and was broken. Poor Perrette! Her beautiful dreams vanished. She wept bitterly and went back home disappointed and sad.

Education Department, Ontario.

Annual Examinations, 1907.

SENIOR TEACHERS, HONOUR AND SCHOLARSHIP
MATRICULATION.

GERMAN AUTHORS, GRAMMAR, AND SIGHT TRANSLATION.

Examiners: { J. W. G. ANDRAS, PH.D.
P. EDGAR, PH.D.
J. SQUAIR, B.A.

A.

1. Translate into English :—

“Kommst du?” fragte dieser lachend. “Haben sie dir die Haut abziehen und deinen Gläubigern verkaufen wollen? Nu, sei ruhig; dein ganzer Jammer kommt, wie gesagt, von dem kleinen Glasmännlein, von dem Separisten und Frömm-ler her. Wenn man schenkt, muss man gleich recht schenken, und nicht wie dieser Knauser. Doch komm,” fuhr er fort und wandte sich gegen den Wald, “folge mir in mein Haus, dort wollen wir sehen ob wir Handels einig werden.”

2. Write a short note in explanation of the phrase *von dem Separisten und Frömm-ler*.

3. Write the infinitive present, the 1st person of the im-perfect, and the past participle of the verbs *abziehen*, *kommt*, *fuhr*, *wandte*, *sehen*.

B.

4. Translate into English :—

Aber ich verliere in solchem Falle alle Gewalt über mich. Es geht mir wie einem, dem die Brille beschlägt: er ist im Augenblick noch übler daran, als ein Blinder. Meine Erziehung trägt die Schuld daran. Mein Vater war ein armer Handwerker und starb früh; meine Mutter, eines Schullehrers Tochter, hatte einen Trumpf darauf gesetzt, aus mir bei aller Kümmerlichkeit ihrer Lebensverhältnisse einen Gelehrten zu machen. Sie hat's unter tausend Entbehrungen erreicht. Aber daß ich von der Welt nichts kennen gelernt habe, als was sich allenfalls davon in den Büchern abspiegelt, können Sie sich vorstellen.

[OVER

5. Write the present tense indicative in full of tragen, sterben, vorstellen.

6. Who is the speaker of the above extract? Explain (in about six lines) the context.

C.

7. Translate into English :—

B a u m a n n. Nun, ja, das fehlte mir noch—(Lacht.) Ha, ha, ha, was so ein junges Ding doch für Schrullen im Kopfe hat! Aber es ist fast natürlich, daß es—da sitzt so ein armes Wesen fast den ganzen Tag mutterseelenallein, fängt Grillen, liest dazu einen verschrobenen neuen französischen Roman, in dem Alles auf die Spitze gestellt ist und was kommt davon heraus? Narrenspößen! (Mit Lachen Cäcilie copierend.) „Er ist nicht eifersüchtig.“ Das nennt sie ein Unglück und lamentiert darüber.—Ich möchte wohl wissen, ob es viele Frauen giebt, die sich darüber grämen!

8. Decline in the singular ein armes Wesen, and in the plural viele Frauen.

D.

9. Translate into English :—

Der Ankömmling dankte, übergab dem Castellan seinen Plaid zum Trocknen und trat näher. Er war schlank und gut gewachsen, sein dunkles Haar war sorgfältig geordnet, und sein Schnurrbart stand in zwei langen Spitzen wagrecht von dem Gesicht ab, dessen regelmäßige Züge einen nicht unangenehmen Ausdruck hatten. Er trug einen kurzen, mit Borten besetzten Rock, ein mit goldenen Fransen geziertes Halstuch, enge Beinkleider und hohe Stiefel von feiner Arbeit.

E.

10. Translate into English :—

So stehst du, o Schloß meiner Väter,
Mir treu und fest in dem Sinn,
Und bist von der Erde verschwunden,
Der Pflug geht über dich hin.

Sei fruchtbar, o teurer Boden,
Ich segne dich mild und gerührt,
Und segn' ihn zwiefach, wer immer
Den Pflug nun über dich führt.

11. Translate into English —

Der Kaufmann hatte die Durchsicht der Briefe beendet; er rief mehrere junge Männer herbei und beauftragte sie mit Beantwortung derselben. „Um ein Uhr muss alles zur Unterschrift fertig sein.—Sie, Herr Becker, müssen sich vorsehen, damit Sie in den französischen Briefen nicht wieder, wie neulich, Fehler machen. Sie arbeiten zu schnell, zu flüchtig; nehmen Sie sich Herrn Haasz zum Muster, seine englische Korrespondenz ist eine Musterkorrespondenz. Uebrigens merke ich bei Ihnen allen seit kurzem eine Neuerung, die nichts taugt. Sie schreiben einen wunderlichen, phrasenhaften Stil und brauchen mitunter drei Zeilen wo drei Worte ausreichen. Unterlassen Sie das! Dergleichen Wortprunk ist überall eine Narrheit, bei einem Kaufmann ist er es doppelt.“

Education Department, Ontario.

ANNUAL EXAMINATIONS, 1907.

SENIOR TEACHERS, HONOUR AND SCHOLARSHIP
MATRICULATION.

GERMAN COMPOSITION.

Examiners: { J. W. G. ANDRAS, PH.D.
P. EDGAR, PH.D.
J. SQUAIR, B.A.

A.

1. Translate into German :—

- (a) What would you do if you had married a jealous husband? I should be cross with him.
- (b) The old uncle comes on a visit to his niece, and he promises to arouse the jealousy of the young doctor.
- (c) The young wife wishes her uncle to disguise himself. Then she will place him near the window so that her husband may see him.
- (d) August mixes some sugar in a glass of water, and frightens his wife, for she thinks that he is going to take poison.

2. Translate into German :—

- (a) Eckart said that he had a great respect for the Americans because they had made a tailor president.
- (b) The father confesses that when he was a young fellow he often cried because his father had not let him learn another craft.
- (c) The high-school master is very angry and resolves to show the exercise of young Master Engelmann to his father.
- (d) The parents are not at home, but the daughter receives the young man in a very friendly way, and asks him to sit down.

[OVER]

3. Translate into German:—

- (a) I should like to have a sofa in my study covered with blue cloth. I would rather have a great many books.
- (b) Fat Ezekiel would not believe that Peter had no more money. Peter did not know what to do.
- (c) He suddenly noticed that someone was walking beside him. He looked round and behold! it was the little Glass-man.
- (d) Peter threw himself on his knees, but his stone heart did not prevent his limbs from trembling like a leaf.

4. Translate into German:—

- (a) Do you know what is the name of the gentleman who cut his hand?
- (b) He ought to have studied in order to be able to pass his examination.
- (c) All the birds begin to sing at dawn. They cease to sing at sunset.
- (d) Not having read the book, I do not know what it contains.

B.

6. Translate into German:—

Lafontaine was fond of eating a baked apple every evening before he went to bed. One evening he was called out of his study just as he was about to eat his apple, and he laid it upon the table. During his absence a friend came into the room, saw the apple and ate it. When Lafontaine returned he did not find the apple. He guessed the truth and cried out: "What has become of my apple?" The visitor said: "I do not know." Lafontaine then said: "I am glad of that, because I put some poison into it to kill rats." The friend, exceedingly frightened, cried out: "Send for a doctor." Lafontaine laughed heartily when he heard this and said: "Dear friend, calm yourself (*beruhigen*); I remember now that I forgot to put in the poison; but I am very sorry that it needed a lie to discover the truth."

Education Department, Ontario.

Annual Examinations, 1907.

SENIOR TEACHERS.

ZOOLOGY.

Examiners: { C. A. CHANT, PH.D.
F. B. KENRICK, PH.D.
W. H. PIERSOL, B.A.

1. Give an account of the plumage of a bird, under the following heads:—

- (a) the different varieties of feathers ;
- (b) the arrangement of these different varieties to serve the purposes of flight ;
- (c) their adaptations to uses other than flight.

2. Compare the external features of an earthworm with those of a leech, showing how the differences noted are related to the habits of each.

3. Compare the alimentary canal of a bird with that of a rabbit (or cat), showing how the differences noted are related to the feeding habits of each animal.

4. Describe the structure of a typical insect as far as revealed by an examination of its external parts only.

5. The scientific name of the whitefish is *Coregonus clupeiformis*, and of the lake herring *Coregonus artedii*. What information about these two fish is conveyed by their scientific names ?

Education Department, Ontario.

Annual Examinations, 1907.

SENIOR TEACHERS.

BOTANY.

Examiners: { C. A. CHANT, PH.D.
F. B. KENRICK PH.D.
W. H. PIERSOL, B.A.

1. (a) Give a full account of the structure and life history of a moss.
(b) Why is a moss considered more closely related to a liverwort than to a club-moss?

2. Give an account of the flowers of the pine from the time of their production to the ripening of the seed.

3. (a) What chemical substances will suffice for the normal growth of an ordinary flowering plant?

(b) How would you proceed to determine whether a particular chemical element, for instance iron, is essential to the normal growth of plants?

4. Give an account of the relations of water to a typical flowering plant, under the following heads:—

- (a) its absorption into the plant;
- (b) its conveyance through the plant;
- (c) its escape from the plant;
- (d) the value to the plant of these processes.

5. Discuss cross-fertilization in flowering plants under the following heads:—

- (a) description of the process;
- (b) the reason for its occurrence;
- (c) the agencies by which it may be accomplished;
- (d) adaptations in the plant to promote it.

Education Department, Ontario.

ANNUAL EXAMINATIONS, 1907.

HONOUR AND SCHOLARSHIP MATRICULATION.

ZOOLOGY.

Examiners: { C. A. CHANT, PH.D.
F. B. KENRICK, PH.D.
W. H. PIERSOL, B.A.

1. (a) While it is yet intact make such drawings of the specimen submitted, naming the various parts, as will constitute a description of its exterior.

(b) Open the caelom along the mid-dorsal line and pin apart the sides of the body-wall. Make a drawing of the caelom and its contents as thus exposed, naming the various parts.

2. Describe the skeleton of the fore-foot of a rabbit and of a pig, also the wing of a bat, showing clearly the corresponding bones in each.

3. (a) Explain, by references to life histories and structure, the difference between a reptile (turtle or snake) and an amphibian (frog).

(b) Describe the main features of the skeleton of the turtle and of the snake, explaining how the peculiarities in each case adapt it to the mode of life of the animal.

4. What points in the structure of a crayfish, a cricket, and a millipede are considered to establish a relationship between these animals?

Education Department, Ontario.

Annual Examinations, 1907.

HONOUR AND SCHOLARSHIP MATRICULATION.

BOTANY.

Examiners : { C. A. CHANT, PH.D.
F. B. KENRICK, PH.D.
W. H. PIERSOL, B.A.

NOTE.—*Thirty minutes are to be allowed for Part A.*

PART A.

Identify the submitted plant by means of your text-book, referring it to its proper order, genus and species, and analyze it according to the accompanying schedule.

(Schedule will be found on Pages 2, 3 and 4.)

[OVER.] ·

NOTE.—Candidates are requested to indicate Class, Sub-Class, and Division thus **X**. Name of Family, Genus and Species must be written in full.

CLASS I.—GYMNOSPERMS.		
CLASS. II.—ANGIOSPERMS.		
SUB-CLASS I.—DICOTYLEDONS.		1. POLYPETALOUS DIVISION,
		2. GAMOPETALOUS DIVISION,
		3. APETALOUS DIVISION,
SUB-CLASS II.—MONOCOTYLEDONS.		1. SPADICEOUS DIVISION,
		2. PETALOIDEOUS DIVISION,
		3. GLUMACEOUS DIVISION,
Family		
Genus		
Species.		

SCHEDULE—(Continued).

ROOT STEM	Origin Form Colour Duration Position Class Attitude Texture Position Shape Juice Branching Height Duration Surface	LEAF	Division..... Position..... Arrangement..... Stipulation..... Insertion..... Outline No. of leaflets, if any..... *Texture..... *Colour *Size..... *Venation..... *Margin..... *Apex *Base..... *Surface
	* Applicable to leaflets if leaf is compound.		
	INFLORESCENCE	Mode.....	Variety

SCHEDULE — (Continued).

THE FLOWER.				
ORGAN.	No.	COHESION.	ADHESION.	NOTES OF FORM, ÆSTIVATION, COLOUR.
Perianth. <i>Leaves.</i>				
Calyx. <i>Sepals.</i>				
Corolla. <i>Petals.</i>				
Stamens. <i>Filaments.</i> <i>Anthers.</i>				
Pistil. <i>Stigmas.</i> <i>Styles.</i> <i>Carpels.</i> <i>Ovary-cells.</i>				

Education Department, Ontario.

ANNUAL EXAMINATIONS, 1907.

HONOUR AND SCHOLARSHIP MATRICULATION

BOTANY.

Examiners: { C. A. CHANT, PH.D.
F. B. KENRICK, PH.D.
W. H. PERSOL, B.A.

PART B.

1. Describe fully the submitted plant.
2. (a) Draw the submitted section as a whole, naming its various parts.
(b) Draw one of these parts under high magnification, naming the various elements that compose it.
3. Describe the structure and mode of reproduction of a chara.
4. Give an account of the various modifications that parts of flowering plants may undergo for the purpose of protecting the plant or its fruit from destruction by insects or other enemies.

Education Department, Ontario.

Annual Examinations, 1907.

SENIOR TEACHERS, HONOUR AND SCHOLARSHIP
MATRICULATION.

GREEK AUTHORS, GRAMMAR, AND SIGHT TRANSLATION.

Examiners: { W. H. ALEXANDER, PH.D.
G. W. JOHNSTON, PH.D.
J. MACNAUGHTON, M.A.

NOTE.—*Senior Teachers will take parts A and B. Honour Matriculation and Scholarship candidates will take parts A and C.*

A.

(For all candidates.)

1. Translate into English:—

Σόλων μὲν δὴ εὐδαιμονίας δευτερεῖα ἔνεμε τούτοις. Κροῖσος δὲ σπερχθεὶς εἶπεν. “ὦ ξένε Ἀθηναῖε, ἡ δὲ ἡμετέρα εὐδαιμονία οὕτω τοι ἀπέρριπται ἐς τὸ μηδὲν ὥστε οὐδὲ ἰδιωτῶν ἀνδρῶν ἀξίους ἡμᾶς ἐποίησας”; Ὁ δὲ εἶπεν. “ὦ Κροῖσε, ἐπιστάμενόν με τὸ θεῖον πᾶν φθονερόν τε καὶ ταραχώδες ὃν ἐπερωτᾷς ἀνθρωπείων πραγμάτων πέρι. ἐμοὶ δὲ σὺ καὶ πλουτεῖν μὲν μέγα φαίνει καὶ βασιλεὺς πολλῶν εἶναι ἀνθρώπων. εὐδαίμονα δὲ οὐπω σε ἐγὼ λέγω, πρὶν ἂν τελευτήσαντά σε καλῶς τὸν αἰῶνα πύθωμαι. σκοπεῖν δὲ χρὴ παντὸς χρήματος τὴν τελευτὴν πῇ ἀποβήσεται. πολλοῖς γὰρ δὴ ὑποδείξας ὄλβον ὁ θεὸς προρρίζους ἀνέτρεψε.”

2. τούτοις: to whom is the reference? Who had been first in Solon's estimation?

3. Translate into English:—

νήπιοι ἀγροῖῳται, ἐφημέρια φρονέοντες,
ᾧ δειλῷ, τί νυ δάκρυ κατεΐβετον ἡδὲ γυναικὶ
θυμὸν ἐνὶ στήθεσσιν ὀρίνετον; ἥ τε καὶ ἄλλως
κέϊται ἐν ἄλγεσι θυμὸς, ἐπεὶ φίλον ὤλεσ' ἀκοίτην.
ἀλλ' ἀκέων δαίνυσθε καθήμενοι ἢ θύραζε
κλαίετον ἐξελθόντε, κατ' αὐτόθι τόξα λιπόντε,
μνηστήρεσσιν ἄεθλον ἀάατον. οὐ γὰρ οἶω
ῤηιδίως τόδε τόξον εὖξοον ἐντανύεσθαι.
οὐ γάρ τις μέτα τοίος ἀνὴρ ἐν τοῖσδεσι πᾶσιν
οἶος Ὀδυσσεὺς ἔσκεν. ἐγὼ δέ μιν αὐτὸς ὕπωπα,
(καὶ γὰρ μνήμων εἰμί), πάϊς δ' ἔτι νήπιος ἦα.

[OVER]

4. Write notes on the syntax of ἀκέων and μέτα.

5. Translate into English :—

Ἄγε, ὦ δίκηλλα, νῦν μοι ἐπίρρωσον σεαυτὴν καὶ μὴ κάμῃς ἐκ τοῦ βάθους τὸν Θησαυρὸν ἐς τοῦμφανὲς προκαλουμένη. ὦ Ζεῦ τεράστιε καὶ φίλοι Κορύβαντες καὶ Ἑρμῇ κερδῶε, πόθεν χρυσίον τοσοῦτον; ἥ που ὄναρ ταῦτά ἐστι; δέδια γοῦν μὴ ἄνθρακας εὔρω ἀνεγρόμενος· ἀλλὰ μὴν χρυσίον ἐστὶν ἐπίσημον, ὑπέρυθρον, βαρύ, καὶ τὴν πρόσοψιν ὑπερήδιστον.

ὦ χρυσέ, δεξίωμα κάλλιστον βροτοῖς· αἰθόμενον γὰρ πῦρ ἅτε διαπρέπεις καὶ νύκτωρ καὶ μεθ' ἡμέραν.

6. Write notes on the syntax of μὴ κάμῃς and μὴ εὔρω.

7. Translate into English :—

Καὶ οὐ πολλαῖς ἡμέραις ὕστερον μετὰ ταῦτα ἐν Κορίνθῳ χωρίων ἰσχυρῶν κατειλημμένων ὥστε τοὺς πολεμίους μὴ δύνασθαι προσιέναι, Ἀγησιλάου δ' εἰς τὴν Βοιωτίαν ἐμβαλόντος, ψηφισαμένων τῶν ἀρχόντων ἀποχωρίσαι τάξεις αἵτινες βοηθήσουσι, φοβουμένων ἀπάντων (εἰκότως, ὦ βουλή, δεινὸν γὰρ ἦν ἀγαπητῶς ὀλίγῳ πρότερον σεσωσμένους ἐφ' ἑτέρον κίνδυνον ἰέναι) προσελθὼν ἐγὼ τὸν ταξίαρχον ἐκέλευον ἀκληρωτὶ τὴν ἡμετέραν τάξιν πέμπειν.

8. Comment syntactically on ὥστε...δύνασθαι and αἵτινες βοηθήσουσι.

9. Translate into English :—

δοκεῖ δέ μοι τῆς πενίας τῆς ἐμῆς τὸ μέγεθος ὁ κατήγορος ἂν ἐπιδείξαι σαφέστατα μόνος ἀνθρώπων. εἰ γὰρ ἐγὼ κατασταθεὶς χορηγὸς τραγωδοῖς προκαλεσαίμην αὐτὸν εἰς ἀντίδοσιν, δεκάκις ἂν ἔλοιτο χορηγῆσαι μᾶλλον ἢ ἀντιδοῦναι ἅπαξ.

10. Give the other degrees of comparison for σαφέστατα and μᾶλλον.

B.

(For Senior Teachers only.)

11. Translate into English :—

Καὶ οὐποτε ἐρεῖ οὐδεὶς ὡς ἐγὼ Ἕλληνας ἀγαγὼν εἰς τοὺς βαρβάρους, προδοὺς τοὺς Ἕλληνας τὴν τῶν βαρβάρων φιλίαν εἰλόμην, ἀλλ' ἐπεὶ ὑμεῖς ἐμοὶ οὐκ ἐθέλετε πείθεσθαι οὐδὲ ἔπεισθαι, ἐγὼ σὺν ὑμῖν ἔψομαι καὶ ὅ τι ἂν δέῃ πείσομαι. νομίζω γὰρ ὑμᾶς ἐμοὶ εἶναι καὶ πατρίδα καὶ φίλους καὶ συμμάχους.

12. Give briefly the story related by Herodotus of any one of the following :—Psammetichus, Arion, Euenius.

13. In the extract from the *Odyssey* in A. above, scan the first line and the last, indicating the quantity of each syllable and the feet divisions. Comment on any special metrical features in the verses.

14. (a) On what evidence did the accusation against Mantitheus rest and how is this evidence controverted?

(b) What light do the circumstances of the *De Invalido* shed upon the administration of public charity at Athens?

15. Translate into English :—

‘Ο ἐμὸς πατὴρ Κέφαλος ἐπείσθη μὲν ὑπὸ Περικλέους εἰς ταύτην τὴν γῆν ἀφικέσθαι, ἔτη δὲ τριάκοντα ὄκησε, καὶ οὐδενὶ πώποτε οὔτε ἡμεῖς οὔτε ἐκεῖνος δίκην οὔτε ἐδικασάμεθα οὔτε ἐφύγομεν, ἀλλ’ οὔτως ὥκουμεν δημοκρατούμενοι ὥστε μήτε εἰς τοὺς ἄλλους ἐξαμαρτάνειν μήτε ὑπὸ τῶν ἄλλων ἀδικεῖσθαι. ἐπειδὴ δὲ οἱ τριάκοντα, πονηροὶ καὶ συκοφάνται ὄντες, εἰς τὴν ἀρχὴν κατέστησαν φάσκοντες χρῆναι τῶν ἀδίκων καθαρὰν ποιῆσαι τὴν πόλιν καὶ τοὺς λοιποὺς πολίτας ἐπ’ ἀρετὴν καὶ δικαιοσύνην τραπέσθαι, τοιαῦτα λέγοντες οὐ τοιαῦτα ποιεῖν ἐτόλμων.

δικάζομαι—I prosecute. καθαρός—clear, free from.

C.

(For Honour Matriculation and Scholarship candidates only.)

11. In the extract from Herodotus (A. 1) comment on the statement τὸ θεῖον πᾶν φθονερόν.

12. What help does the theory of the digamma afford in the line

τοῖσι δὲ καὶ μετέειψ’ ἱερὴ ἰς Τηλεμάχοιο.

13. (a) οὔτ’ ἐκεῖνοι φαίνονται τοιαύτην γνώμην σχόντες ὥστε τοῖς μηδὲν ἐξαμαρτάνουσι μεταδιδόναι τῆς πολιτείας. Explain in detail.

(b) In the passage in A. 9 explain the operation of the antidosis.

[OVER]

14. Comment upon the meaning of the following underlined words or phrases :—

- (a) πόσοι Φαέθοντες ἢ Δευκαλίωνες ἱκανοὶ πρὸς οὕτως ὑπέρ-
αντλον ὕβριν τοῦ βίου;
- (b) ὁ δὲ κεραυνὸς ἐς τὸ Ἀνάκειον παρασκήψας ἐκεῖνο κατέ-
φλεξε.
- (c) καθάπερ ἰέρειαν τῇ Θεσμοφόρῳ τρέφων.
- (d) ἔπεισεν ἡ ὑσπληγξ.
- (e) ἔλαχε τῇ Ἐρεχθίδι φυλῇ διανέμειν τὸ θεωρικόν.
- (f) τῇ Ἡλιαίᾳ κατὰ φυλάς.

15. Translate the following, commenting fully upon the syntax of the underlined words or phrases :—

(a) ἐπειδὴ γὰρ κατήλθετε, ἐψηφίσασθε τοὺς φυλάρχους ἀπενεργεῖν
τοὺς ἰππεύσαντας, ἵνα τὰς καταστάσεις ἀναπράξῃτε παρ' αὐτῶν.

(b) πῶς οὖν οὐκ ἂν δειλαιότατος εἶην, εἰ τῶν μὲν καλλίστων καὶ
μεγίστων διὰ τὴν συμφορὰν ἀπεστερημένος εἶην, ἃ δ' ἡ πόλις ἔδωκε
προνοηθεῖσα τῶν οὕτως διαχειμένων, διὰ τὸν κατηγορὸν ἀφαιρεθεῖην;
μηδαμῶς, ὦ βουλὴ, ταύτῃ θῆσθε τὴν ψῆφον.

16. Translate into English :—

Θαυμάζω δὲ μάλιστα, ὦ ἄνδρες δικασταί, εἴ τις ὕμῶν τὸν Ἀλκι-
βιάδην ἀξιώσει διὰ μὲν τοὺς ἠοιθοῦντας σώζεσθαι, διὰ δὲ τὴν αὐτοῦ
πονηρίαν μὴ ἀπολέσθαι. ἥς ἄξιον ὑμᾶς ἀκοῦσαι, ἵν' ἐπίστησθε ὅτι οὐκ
ἂν εἰκότως αὐτοῦ ἀποψηφίζοισθε, ὥς ταῦτα μὲν ἡμαρτηχότος, τὰ δ'
ἄλλα πολίτου χρηστοῦ γεγεννημένου. ἐκ γὰρ τῶν ἄλλων τούτῳ πεπραγ-
μένων δικαίως ἂν αὐτοῦ θάνατον καταψηφίζοισθε. προσήκει δ' ὑμῖν
περὶ αὐτῶν εἰδέναι. ἐπειδὴ γὰρ καὶ τῶν ἀπολογουμένων ἀποδέχεσθε
λεγόντων τὰς σφετέρους αὐτῶν ἀρετὰς καὶ τὰς τῶν προγόνων εὐεργε-
σίας, εἰκὸς ὑμᾶς καὶ τῶν κατηγορῶν ἀκροῶσθαι, ἐὰν ἀποφαίνωσι τοὺς
φεύγοντας πολλὰ εἰς ὑμᾶς ἡμαρτηχότας καὶ τοὺς προγόνους αὐτῶν
πολλῶν κακῶν αἰτίους γεγεννημένους.

ἀποψηφίζομαι—I acquit.

ἀποδέχομαι—I permit (with the genitive).

εἰκός (ἐστι)—It is proper.

Education Department, Ontario.

Annual Examination, 1907.

SENIOR TEACHERS, HONOUR AND SCHOLARSHIP MATRICULATION.

GREEK COMPOSITION.

Examiners: { W. H. ALEXANDER, PH.D.
G. W. JOHNSTON, PH.D.
J. MACNAUGHTON, M.A.

1. Translate into Greek:—

- (a) It was not Cyrus' way, not to give a thing if he had it.
- (b) They could not prevent us from reaching the city.
- (c) Were I to say that I admire him, I should not be telling the truth.
- (d) See that you do not fall below the expectations of your countrymen.
- (e) He told him to come, taking with him all the troops, except so many as were enough to guard the citadels.
- (f) He promised the exiles from Miletus, that if he should be successful in accomplishing the objects of his expedition, he would never rest until he had restored them to their homes.
- (g) He asked me whether I had rather be considered a knave or a fool.

2. Translate into Greek:—

Cyrus always behaved in a very princely manner towards the Greeks, especially in the case of Xenias and Pasion. On the arrival of the army at Myriandros, a sea-board city of the Phoenicians, these generals, moved it was said by envy of Clearchus, who was held in very high esteem by Cyrus, put all their most valuable belongings on board a merchantman and sailed away for Greece. When they had disappeared the report went abroad that Cyrus was going to pursue them with men-of-war. Some hoped he would overtake them and punish them for their cowardice, while others were sorry to think what would become of them in the event of their being captured. Thereupon Cyrus called a meeting of the Greeks and told them that al-

[OVER]

though the generals had deserted, he knew quite well where they were and could easily take them if he liked. But he would not pursue them, he said. No one should ever be able to say of him that while he made use of men as long as they were with him, he arrested and despoiled them of their goods as soon as they saw fit to leave him. "No!" he said, "let them go, carrying with them the consciousness that if they have been false to me I have not been false to them. And yet I could take a bitter revenge upon them if I chose. I have their wives and children under guard at Tralles. They shall not be deprived even of these. They shall receive them safe and sound in return for their former services to me." Cyrus lost nothing by this clemency. The generals were gone but their soldiers remained. The Greeks were highly delighted by his speech, and followed him with much more pleasure and enthusiasm than heretofore.

safe and sound—ἀκέραιος.

clemency—ἐπιείκεια.

Education Department, Ontario.

ANNUAL EXAMINATIONS, 1907.

HONOUR AND SCHOLARSHIP MATRICULATION.

PROBLEMS.

Examiners: $\begin{cases} \text{W. H. BALLARD, M.A.} \\ \text{J. MATHESON, M.A.} \\ \text{W. PRENDERGAST, B.A.} \end{cases}$

1. Show that

$$\frac{n^2}{1^2} - \frac{n^2(n^2 - 1^2)}{1^2 \cdot 2^2} + \frac{n^2(n^2 - 1^2)(n^2 - 2^2)}{1^2 \cdot 2^2 \cdot 3^2} - + - \dots \text{ to } n \text{ terms}$$

is equal to unity, n being any integer.

2. The $(l+1)$ th, $(m+1)$ th, $(n+1)$ th terms of an arithmetic progression are respectively equal to the $(r+1)$ th, $(s+1)$ th, $(t+1)$ th terms of a harmonic progression, and the first term of each is 1. Prove that $rsn(l-m) + stl(m-n) + trm(n-l) = 0$.

3. Solve the set of equations:—

$$x - \sqrt{yz} = 38,$$

$$y - \sqrt{zx} = -22,$$

$$z - \sqrt{xy} = -2.$$

4. If $a \cos 3\theta + b \cos 2\theta + c \cos \theta = 0$, and $2a \cos 2\theta + 2b \cos \theta + c = 0$, prove that $ac = 2(a^2 - b^2)$.

5. Prove that $\sec 40^\circ + \sec 80^\circ + \sec 160^\circ = 6$.

6. Tangents at A and B on a circle meet at C , and D is any point on the circumference. Show that

$$AD^2 \sin BCD = BD^2 \sin ACD.$$

7. A and B are fixed points on a circle whose centre is O . AET and BDT are tangents, and ED touches the circle at C . Prove that the area of the polygon $AOBDE$ is a minimum when OC bisects the angle AOB .

[OVER]

8. Find two circles to pass through a given point and touch two given intersecting straight lines.

9. AS and AT , BP and BQ are tangents from any two points A and B to a fixed circle. C , D , E , F are the middle points of AS , AT , BP , BQ respectively. Prove that CD and EF , produced if necessary, meet on the line that bisects AB at right angles.

10. Prove that the area of the triangle formed by the two tangents from (a, b) to the circle $x^2 + y^2 = r^2$ and their chord of contact is

$$\frac{r}{a^2 + b^2} (a^2 + b^2 - r^2)^{\frac{3}{2}}.$$

11. The sum of the perpendiculars from two fixed points, (x_1, y_1) and (x_2, y_2) , to a variable line $lx + my + n = 0$ is equal to the constant a . Prove that the line is always tangent to a fixed circle, and find the equation of the circle.

Education Department, Ontario.

Annual Examinations, 1907.

JUNIOR MATRICULATION.

ARITHMETIC AND MENSURATION.

(Special Pass Paper for Scholarship Candidates.)

Examiners: { W. H. BALLARD, M.A.
J. MATHESON, M.A.
W. PRENDERGAST, B.A.

1. (a) Express $\frac{8}{13}$ as a circulating decimal.
(b) What other fractions having 13 for denominator may be expressed as circulating decimals from the result of (a) without dividing?
2. Find by contracted methods the value of:—
(a) $(1.05)^6$ correct to 4 places of decimals;
(b) $\sqrt{5}$ correct to 6 places.
3. Find the proceeds of a note for \$498.50 drawn June 22 at 60 days and discounted July 9 at 6 per cent.
4. A bank stock pays 7 per cent. dividends. What can an investor afford to pay for it in order to receive 5 per cent. interest on his money?
5. Find in yards to two decimal places, the radius of a circular field containing 10 acres.
6. Find to two decimal places the edge of a cube equal in volume to a sphere whose radius is 11 inches.
7. An agent received a consignment of lumber which he sold, charging a commission of 3 per cent. With the net proceeds after deducting a commission of 2 per cent. for purchasing, he bought 9700 bushels of wheat at 80 cents a bushel. Find the value of the lumber sold.
8. Find the cost in Toronto of a bill of exchange on London for £2769, exchange being quoted at $8\frac{3}{4}$.

Education Department, Ontario.

Annual Examinations, 1907.

JUNIOR MATRICULATION.

ENGLISH GRAMMAR AND RHETORIC.

(Special Pass Paper for Scholarship Candidates.)

Examiners: { A. R. BAIN, M.A.
W. S. W. McLAY, M.A.
M. W. WALLACE, PH.D.

1. It is well known to everyone in this neighbourhood that there is no man whose word can be more depended on than his; that *whatever* he undertakes to do he does well, and is *as* careful for the interests of those who employ him *as* for his own. I'm proud to say that I was very fond of him when I was a little boy, and I have never lost my old feeling for him—I think that shows that I know a good fellow when I find him. *It* has *long* been my wish that he should have the management of the woods on the estate, which happen to be very valuable; not only *because* I think so highly of his character, but because he has the knowledge and the skill which fit him for the place.

(a) Write out in full each of the clauses in the above passage; in the case of the subordinate clauses give the kind and the relation.

(b) Give the value and relation of the italicized words.

2. Give the grammatical values and relations of the italicized words in the following sentences:—

(a) He made the stick *straight*.

(b) Last *night* I worked for three *hours*.

(c) I think *it* wrong to do so.

(d) I have been here *since* yesterday.

(e) I have been here *since* my brother went away.

(f) What do you think of his *giving* me the horse?

(g) A *glittering* sheet of water lay before us.

3. Give the rules for the use of “shall” and “will” in assertive and interrogative sentences, and in subordinate clauses.

4. Explain the following terms:— A Synthetic Language, Syntax, Relational Words, Hybrid, Ethical Dative.

[OVER]

5. Point out the rhetorical or grammatical defects in the following sentences, and recast the sentences so as to remove the defects:—

- (a) Cedar is more durable but not so hard as oak.
- (b) The snow came down mercilessly till about noon, clearing off then, and remaining fine till evening.
- (c) He was determined to be silent, and even that he should not feel irritated.
- (d) While walking in my garden this morning, a caller came.
- (e) If she don't know who I mean I will have to speak out plainer than I had intended to have spoken.
- (f) She treated her servants kindly which shows the lady she was.

6. Name in order the chief languages from which English has borrowed words in the course of its history, and indicate as far as possible the nature of the words thus borrowed.

7. Criticise (briefly) the rhetorical structure of the following sentences:—

- (a) I had been in Boston before, but only for three or four days, so I knew nothing about the streets, which, by the way, seem especially crooked to me, coming as I do from Chicago, where they are very straight and regular.
- (b) Imagine yourself on the bank of one of our beautiful rivers, and that the time is the month of October.
- (c) She said that the man was a good musician, and his efficiency as a teacher was praised by her.
- (d) After working continuously for eighteen hours he asked to be relieved, the foreman peremptorily ordered him to continue his task. Which makes one feel that labour unions are justified in spite of their faults.

Education Department, Ontario.

Annual Examinations, 1907.

SENIOR TEACHERS.

ENGLISH LITERATURE—SPECIAL.

(Circular 50 A.)

Examiners : { A. R. BAIN, M.A.
W. S. W. McLAY, M.A.
M. W. WALLACE, PH.D.

NOTE.—Candidates will take the questions marked with an asterisk, and any THREE others.

1. Give in your own words a careful character sketch of the Prioress and the Parson, as portrayed by Chaucer in the *Prologue*.

*2. Interpret the italicized portions of the following passages, stating in each case the person of the *Prologue* from the description of whom the passage is taken :—

- (a) Ful ofte tyme he *hadde the bord bigonne*.
- (b) I seigh his sleeves *purfiled* at the hond
With *grys*, and that the fyneste of the lond.
- (c) Ther nas no man nowher so *vertuous*.
He was the beste beggere in his hous ;
His *purchas* was wel bettre than his *rente*.
- (d) Al was *fee simple* to him in effect,
His *purchasing* mighte nat ben *enfect*.
- (e) Of *nyce conscience* took he no keep.
If that he faught, and had the hyer hond,
By water he sente hem hoom to every lond.
- (f) But she was som-del deaf, and that was *scathe*.
- (g) Ther nas baillif, ne *herde*, ne other *hyne*,
That he ne knew his *sleighte* and his *covyne*.
- (h) In daunger hadde he at his owne gyse
The *yonge girles* of the diocyse,
And knew hir counseil, and was al hir reed.
- (i) A *vernicle* hadde he sowed on his cappe.
His walet lay biforn him on his lappe
Bret-ful of pardoun come from Rome al hoot.

3. (a) Narrate the adventures of the Red Cross Knight in the House of Pride as given in Cantos IV. and V. of the *Faerie Queene*, Book I., describing briefly the procession of Lucifera and her counsellors, and the visit of Duessa to Erebus;

OR,

(b) Write an account of the experiences of the Red Cross Knight in the House of Holiness.

*4. Give the meaning of the italicized words and phrases in the following:—

- (a) Ah my dear sonne (quoth he) how should, alas,
Silly old man, that lives in hidden cell,
Bidding his beades all day for his trespass,
Tydings of warre and worldly trouble tell?
With holy father *sits* not with such things to *mell*.
- (b) The sunne that measures heaven all day long,
At night doth *baite* his steedes the ocean waves emong.
- (c) Whose forged beauty he did *take in hand*
All other dames to have exceeded farre.
- (d) So doubly lov'd of ladies unlike faire,
Th' one seeming such, the other such indeede,
One day in doubt I *cast* for to compare
Whether in beauties glorie did excede.
- (e) *Eftsoones* he perced through his *chaufed* brest
With *thrilling* point of deadly yron brand,
And *launcht* his lordly hart.

*5. In *Paradise Lost*, Book I., point out the various means whereby Milton succeeds in giving the reader a strong impression of the greatness of Satan.

6. Write such an account of *The Rape of the Lock* as would give a person unacquainted with it an adequate idea of its substance and the reasons for its being considered a masterpiece.

7. Trace in an orderly manner the development of the thought in the *Ode on the Intimations of Immortality*.

*8. Give the substance of any *four* of the lyrics of *In Memoriam* beginning with the following lines:—

- (a) I held it truth, with him who sings
To one clear harp in divers tones, etc.
- (b) Yet if some voice that man could trust
Should murmur from the narrow house,
'The cheek drops in, the body bows;
Man dies: nor is there hope in dust;' etc.

- (c) Could we forget the widow'd hour
And look on spirits breathed away,
As on a maiden in the day
When first she wears her orange-flower !
- (d) 'So careful of the type ?' but no.
From scarpèd cliff and quarried stone
She cries, 'A thousand types are gone :
I care for nothing, all shall go.' etc.
- (e) Dost thou look back on what hath been,
As some divinely gifted man,
Whose life in low estate began
And on a simple village green ; etc.
- (f) Contemplate all this work of Time,
The giant labouring in his youth ;
Nor dream of human love and truth
As dying Nature's earth and lime ; etc.

9. In order to show the development of hope in the poet, compare briefly the lyrics of *In Memoriam* dealing with (a) the yew-tree, (b) the visits of Tennyson to the home of Hallam, and (c) the three series of Christmas poems.

Education Department, Ontario.

Annual Examinations, 1907.

SENIOR TEACHERS.

HISTORY OF ENGLISH LITERATURE AND LANGUAGE.

(Circular 50 A.)

Examiners: { A. R. BAIN, M.A.
W. S. W. McLAY, M.A.
M. W. WALLACE, PH.D.

1. "Spenser had the tendencies of the time with him. . . . The time, in truth, was full of poetry. The nation was just in that condition which is most favourable to an outburst of poetical life or art."

Mention various features of Elizabethan life that may be supposed to have been favourable to the production of great literature.

2. (a) Make a list of poems written by Milton during the Horton period of his life (1632-1639), giving a brief characterization of each.

(b) Indicate in a general way the character of his literary work during the second period into which his life is divided (1640-1660).

3. Mention the features of Goldsmith's poetry that connect it with the work of Pope on the one hand, and that of Wordsworth on the other.

4. Describe as fully and as clearly as you can Wordsworth's attitude towards Nature, illustrating by reference to his poems.

5. (a) Mention, with brief explanatory comment, *four* principal characteristics of the Teutonic group of languages.

(b) Using the following pairs of cognate words, illustrate the consonant changes comprised under Grimm's Law:—*ped(em)*: foot; *fidi*: bite; *tres*: three; *cent(un)*: hundred; *genu*: knee.

[OVER]

6. (a) In what dialect of Old English did an important literature first appear?

(b) To what other one was the literary supremacy transferred?

(c) What causes led to this transference?

(d) What dialect of Middle English finally became the language of standard literary English?

(e) What causes contributed to this result?

7. (a) Give modern English words etymologically connected with the following and containing vowels that are the result of the operation of mutation:—fall, gold, full, doom.

(b) Mention modern plurals containing mutated vowels corresponding to

a, ou(Old Eng. $\bar{u}$), oo(Old Eng. $\bar{o}$).

8. (a) Point out various changes that have affected the native element in the English *vocabulary* since Old English times, illustrating by examples.

(b) From what languages have the following words been borrowed:—wall, glen, bishop, bask, count, balcony, armada, yacht, knout, cherub, admiral, wigwam?

Education Department, Ontario.

ANNUAL EXAMINATIONS, 1907.

COMMERCIAL SPECIALISTS.

BOOK-KEEPING—THEORY.

Examiners : { J. A. DICKINSON.
R. H. ELDON, B.A.
E. E. C. KILMER, B.A.

NOTE.—*Questions 1, 2, 3, 4, 5, and either 6 or 7 constitute a full paper.*

1. Distinguish between :—

- (a) Auxiliary and Principal books of record ;
- (b) Capital or Stock A/c and the Capital Stock A/c ;
- (c) Contingent A/c and Suspense A/c ;
- (d) Tools A/c and Machinery A/c ;
- (e) Factory Cost and Actual Cost ;
- (f) Wages and Salary ;
- (g) Output and Turnover.

2. Write explicitly on the following :—

(a) How you would proceed to change a set of books from the Single Entry to the Double Entry system.

(b) How you would rectify the following errors made in the Single Entry record in (a) discovered after the change was made to Double Entry :—(i) Invoice of goods received from A. Amos for \$265 was passed into stock but otherwise unrecorded. (ii) A cash payment of \$25 on account by J. Smith unrecorded.

(c) What records in detail should a Wages Register and Office Time and Pay Sheet show, and how should these records affect the Ledger.

(d) The advantages of a regular system of cost keeping. In the absence of such a system state how you would ascertain approximately the factory cost and actual cost per cwt. of a certain new line of confectionery in the Brown Biscuit Co. factory.

(e) Goodwill A/c, stating on what basis the goodwill of a business should be calculated as an asset.

[OVER]

3. (a) Explain fully the nature of the records in the following accounts and what result the bookkeeper derives from each :— Sales A/c, Purchases A/c, Manufacturing A/c, Loss and Gain A/c, Discount A/c, and Plant A/c. Illustrate by a skeleton outline of each when closed.

(b) Into what accounts is the Plant A/c sometimes divided by bookkeepers and for what purpose? State the usual method of obtaining the value of the articles charged to this account or its subdivisions, at the time of closing the books.

4. “Productive labour should carry all the burdens of general expense items entering into the cost of the manufactured goods.”

(a) Discuss the above statement.

“The statement that the total outlay in the production of a commodity is ‘prime cost’ plus expense of selling, distribution and administration is in our opinion an obvious fallacy.”

(b) Defend the above statement or point out the fallacy.

5. (a) Outline a set of records for a commission merchant doing a strictly cash business and handling fruit on commission and carrying a stock of dairy produce of his own.

(b) Rule a specimen of each record and show how each contributes to the general ledger record. Account sales are made fortnightly and remittances made by bank drafts accompanying Account Sales.

6. Mr. M., who has been in the merchant tailoring business in the town of L. for the past 25 years, is considering taking in N. as a partner, not so much because of the value of the capital he can invest as because of the value of his services as a salesman, cutter and general business attractor. The business is located on the main floor of a building owned by M. worth \$30,000, and the main floor rental is worth \$100 per month. M. has kept the business well advertised, has the goodwill of the whole community, and is rated A1 in the Mercantile Agency Reports. During the past year he did a business of \$30,000. His interest in the business is \$10,500 as per statement, and he has just spent \$1000 in improving the interior of the main floor apartments with a view of taking in a partner. The prospective partner N. has \$1500 cash to put into the business. Both M. and N. come to you for advice as to what would be an equitable basis on which to form a partnership and to share the profits.

(a) State what advice you would give in this respect.

(b) State whether the partnership assets should include (i) Goodwill, and if so, for what amount; (ii) the outlay of \$1000 on store improvements; (iii) the \$200 advertising matter on hand; (iv) advertising for the past year, \$800.

(c) State what provisions should be made to protect each partner's interest in case either partner wished to withdraw from the partnership.

(d) Make out a financial statement for the partnership firm formed along the lines of your advice.

M'S FINANCIAL STATEMENT.

M's Investments :—

Mdse. and Accounts Receivable	\$9500.00	
Cash	500.00	
Advertising material on hand	200.00	
Store Fixtures and Tools	600.00	\$10,800.00

M's Liabilities :—

Accounts Payable.....	300.00	
M's Present Net Worth	10500.00	10,800.00

7. The firm of E, G & B has been compelled to assign, and you have been requested by the assignee to make out financial statements and a deficiency account from the following data :—

Unsecured creditors, A \$35,000, B \$27,500, C \$26,000, D \$24,500, E \$17,500, F \$15,000, G 2,000 ; Creditors for rent, salaries, etc., \$1,250, of which \$750 is preferential ; Personal debtors, \$42,500, of which \$37,500 is good, \$1,825 doubtful (estimated to produce \$625), and \$3,175 bad ; Bills Receivable, H \$3,000, J \$4,250, K \$2,500, L \$1,500 ; Land and Buildings, \$25,000 ; Plant and Machinery, \$8,500 ; Stock on hand, \$5,000 ; Furniture and fixtures, \$1,500 ; Cash on hand, \$15,000 ; Sundry Profits, \$37,500 ; Sundry Losses, \$30,000 ; Trading Expenses, \$17,500. E's Capital Account is credited with \$5,000, G's with \$3,750, B's with \$3,750. E's drawings are \$10,000, G's, \$15,000, and B's \$17,000.

Make out the Statements and Deficiency Account.

Education Department, Ontario.

ANNUAL EXAMINATION, 1907.

COMMERCIAL SPECIALISTS.

PENMANSHIP.

Examiners: { J. A. DICKINSON.
R. H. ELTON, B.A.
E. E. C. KILMER, B.A.

1. Describe the correct position of body, hand and pen in developing muscular movement.

2. (a) Name, with examples, all the principles upon which a set of Business Capitals is based.

(b) Give examples of all other outlines for class practice which you regard as fundamental in the development of the Capital letters.

3. Make seven series of practice exercises showing how you would develop the correct form of the following seven letters from the fundamental forms :—A, C, T, H, G, S, D.

4. Classify the Capital letters according to the principles involved in their formation and the fundamental outlines necessary for their development in class practice.

5. Give a series of exercises that you would use for class practice, to develop the correct form of the loop letters.

6. Set down six addends, each comprising 8 digits, and show the sum of the six.

7. Write a complete set of Business Capitals.

8. Write the following words ten times each, at your highest rate of speed :—minimum, ammonia, lucifer, pippin, things, tabard, yesterday, zealous.

[OVER]

9. In what order would you teach form and speed in connection with a three-fold practice of development exercises during the first year course of High School work, one complete practice being made during each school term ?

10. Write the heading of the following Ledger A/c and make the entries indicated :—

Dr.				A. Vanvolkinburg, Islington.				Cr.			
Jan.	15	To Goods	3m 47	116	40	Feb.	1	By Draft	10 dys	96	328 80
	15	“	1m 48	215	90		1	Discount		13	3 50
May	26	To Goods	net 79	123	64	June	1	By Sgt. Draft		28	123 64
Aug.	30	To Goods	49.93 1m								
			37.17 (s)		87 00						

Education Department, Ontario.

ANNUAL EXAMINATION, 1907.

COMMERCIAL SPECIALISTS.

MERCANTILE ARITHMETIC.

Examiners: $\left\{ \begin{array}{l} \text{J. A. DICKINSON.} \\ \text{R. H. ELDON, B.A.} \\ \text{E. E. C. KILMER, B.A.} \end{array} \right.$

1. (a) Find the present value of an annuity A to run n years. Assume V as the present value of the annuity, R as the amount of \$1 for 1 year. Reckon compound interest.

(b) What is the value of V when n becomes infinite?

(c) Show that the number of years' purchase of a perpetuity is obtained by dividing 100 by the rate per cent.

2. A man has a capital of \$20,000 upon which he receives interest at 5%. If he spends \$1800 every year, show that he will be ruined before the end of the 17th year: Having given $\log 2 = .3010300$; $\log 3 = .4771213$; $\log 7 = .8450980$.

3. Find the equated time for settlement of the following account:—

Henry Maynard.

1906					1906				
Jan.	3	To Goods at 90 days	475 00		Jan.	19	By Cash	200 00	
"	27	" at 60 "	695 00		"	31	"	100 00	
Feb.	13	" at 90 "	323 00		Feb.	22	"	300 00	
Mar.	23	" at 60 "	423 00		Mar.	19	"	160 00	
Apr.	13	" at 30 "	275 00						

4. A town borrows \$20,000, which is to be repaid in 15 years by equal annual instalments including principal and interest. If the rate of interest is 5%, what is the amount of the annual payment? What portion of the 8th payment will be on account of interest and principal respectively?

5. When money is worth 4% per annum an insurance company offers Brown an annuity of \$160 for the sum of \$2000. What do you consider Brown's expectancy of life at the time the offer is made? ($\log 1.04 = .0170333$; $\log 2 = .3010300$.) [OVER]

6. What is the value of a perpetual annuity, of \$40 payable at the end of the first year, \$45 at the end of the second, \$50 at the end of the third, and so on, increasing \$5 each year; interest being taken at 6% per annum?

7. A reservoir is built in the form of the frustrum of a pyramid. The length of the top is 160 feet, width 60 feet, the sides and ends sloping inward at an angle of 45° . The vertical depth of reservoir when full of water is 9 feet.

- (a) How many gallons will it hold, given that a gallon of water weighs 10 lbs., and a cubic foot of water weighs 1000 ozs?
- (b) If the reservoir be full, how many gallons must be removed to lower the surface of the water 2 feet?
- (c) What must be the measurements of a cylindrical standpipe which will hold half as much water as the reservoir, the height of the standpipe being seven times its diameter?

8. A broker received a consignment of 4375 barrels of apples with instructions to sell at \$2.50 per barrel, on a commission of 4%, pay freight on the apples, \$75, and purchase with the proceeds tea on a commission of 2%, prepay freight at 20 cents per cwt., and insurance at $1\frac{1}{4}\%$ on the tea; also to retain his buying and selling commissions. The freight bills showed that 50,000 lbs. of tea were shipped. What did it cost per pound?

Education Department, Ontario.

ANNUAL EXAMINATIONS, 1907.

COMMERCIAL SPECIALISTS.

GENERAL COMMERCIAL KNOWLEDGE.

Examiners : { J. A. DICKINSON.
R. H. ELDON, B.A.
E. E. C. KILMER, B.A.

1. How does the Statute of Limitations apply to :—

- (a) Cheques ;
- (b) Promissory Notes ;
- (c) Book Accounts ;
- (d) Judgments ;
- (e) Chattle Mortgages ;
- (f) Bank Notes ?

2. Write notes on negotiation of bills under the following heads :—

- (a) Purposes of indorsement ;
- (b) Methods of indorsement ;
- (c) Indorser's contract ;
- (d) Overdue notes.

3. (a) On June 1st, 1904, Smith gave Jones a mortgage on his real estate, at the same time he owed several firms for goods. On June 30th the sheriff made a seizure of Smith's goods under an execution, but before the seized goods were sold Smith assigned. How should the assignee distribute the estate ?

(b) What proceedings in the shape of notice or notices should be taken when an assignment is made for the general benefit of creditors ? What penalties follow failure to comply in this respect ?

4. What general provisions should be made in a will ? State the requirements to be observed in signing, attesting, striking out or adding words, adding codicils.

[OVER]

5. (a) Explain the following terms as applied to Joint Stock Companies :—(i) Letters Patent, (ii) Capital Stock, (iii) Proxy, (iv) Limited, (v) Shareholder.

(b) How may the liability of the holder of shares not fully paid be terminated ?

6. (a) What are the advantages to a man entering a limited liability company rather than a firm ?

(b) What liability does a stockholder in a chartered bank incur, that he would not incur as a stockholder of a trading company ?

7. Who are common carriers ? Who and what are to be carried ? State exceptions. What is the carrier's liability ?

8. Discuss Landlord and Tenant under the following heads :—

(a) Rights ;

(b) Duties and liabilities.

9. Define :—Power of Attorney, Debentures, Guarantor, Fee Simple, Collateral, Hypothecate, Protest, Lien, Accommodation Paper, Money.

10. (a) The British Sovereign contains 123·27447 grains of gold eleven-twelfths fine, and the American dollar 25·8 grains of gold nine-tenths fine. What is the mint par of exchange between London and New York ?

(b) Under what conditions is the balance of trade between England and the United States against the former ?

Education Department, Ontario.

ANNUAL EXAMINATIONS, 1907.

COMMERCIAL SPECIALISTS.

AUDITING.

Examiners : { J. A. DICKINSON.
R. H. ELTON, B.A.
E. E. C. KILMER, B.A.

1. (a) State how you would proceed to audit the books of (i) a partnership, (ii) a joint stock company.

(b) How would you deal with Petty Cash and Bank Accounts in making an audit?

2. (a) What extra accounts would you expect to find in Self-balancing Ledgers?

(b) What test should be made of the correctness of such ledgers?

3. (a) Discuss Card and Loose Leaf Ledgers from the auditor's standpoint.

(b) How should they be examined?

4. (a) What check should there be on Stores and Stock Accounts to insure a correct statement of gain?

(b) What examination should an auditor make of Suspense Account, Bad and Doubtful Debts, and Capital and Revenue Expenditure?

5. (a) State some of the chief openings for fraud in mercantile bookkeeping.

(b) To what extent should the audit of posting be done in detail, (i) in wholesale books, (ii) in retail books?

6. (a) What points must be taken into consideration in criticizing the stated values of the assets of various concerns?

(b) What precautions are especially necessary, on the part of the auditor, in connection with Plant and Machinery, Cash Balance and Bills Receivable?

7. (a) What is the purpose of the Revenue Account?

(b) Name the various items, for both sides, that may be found in a Revenue Account.

(c) To which of these items should an auditor give particular attention?

Education Department, Ontario.

ANNUAL EXAMINATIONS, 1907.

COMMERCIAL SPECIALISTS.

ECONOMICS.

Examiners : { J. A. DICKINSON.
R. H. ELDON, B.A.
E. E. C. KILMER, B.A.

1. "This political difference has been the pretext for an interference of governments with foreign trade."

(a) How do governments interfere with foreign trade?

(b) State the arguments for and against this interference.

2. (a) What is the purpose of money?

(b) What is the function of gold in making exchanges?

Why are shipments of gold made?

3. (a) What connection has *final utility* with the phenomena of exchange?

(b) What is the relation between price and cost?

(b) Explain *marginal cost*.

4. What is Capital? How is it formed? Compare long and short methods of formation.

5. (a) State the theory of the Wages Fund? Discuss the truth of it.

(b) How does the market for labour differ from the market for goods?

(c) Discuss Malthus' theory of population.

6. (a) Compare the single standard of currency with the double standard.

(b) What is the function of Banks in our Canadian system of exchange?

7. What are the economic benefits and non-benefits of rapid means of communication?

[OVER]

8. (a) Distinguish between direct and indirect taxation.
(b) What benefits accrue to those who pay taxes?
(c) What precautions should be taken in levying taxes?

9. (a) What is Socialism? Is it a cure for economic difficulties?

(b) There are "certain standing difficulties in the present organization of industrial society." Discuss some of these difficulties.

(c) What connection has the "submerged tenth" with these difficulties?

Education Department, Ontario.

ANNUAL EXAMINATIONS, 1907.

COMMERCIAL SPECIALISTS.

STENOGRAPHY—THEORY.

Examiners: { J. A. DICKINSON.
R. H. ELDON, B.A.
E. E. C. KILMER, B.A.

1. (a) Point out some defects in the English alphabet and indicate the extent to which these defects are remedied by the Pitmanic phonetic alphabet.

(b) Classify the phonetic alphabet, including double letters.

2. State and illustrate :—

(a) the advantage of the circle s ;

(b) when the stroke s and when the circle s should be used ;

(c) the use of the large circle s medially and finally.

3. (a) When should the hooks r and n not be used? Illustrate.

(b) Illustrate how the duplicate forms for fr, vr, *thr*, thr, are used.

4. Explain briefly and illustrate :—

(a) the manner of using the “tion” hook ;

(b) the use of the aspirate ;

(c) the halving principle ;

(d) the double-length principle.

5. Illustrate by words and shorthand forms how to use :—

(a) the following prefixes :—inter, magna, self, in ;

(b) the following suffixes :—ality, ly, mental, mentality, self, ship.

6. (a) What points are to be observed in (i) position writing, (ii) construction and writing of phraseograms.

(b) How are the following punctuation marks indicated :—period, hyphen, parenthesis, initial capitals ?

[OVER]

7. Write the following words fully vocalized, using the most approved Consonantal outline:— assiduous, inscription, traditional, miscalculated, parallel, neutrality, ringlet, narcissus, subscribe, allegorical, folio, create, poetic, Ohio, science, climate, calamity, fortune, fourteen, exclusive.

8. What essentials are to be observed in learning to write shorthand, and in becoming proficient in writing it?

9. Write in reporting style:—

Magistrate Daly to-day imposed the heaviest sentence of imprisonment ever given in Manitoba when he sent J. E. Sterling, sneak thief, pick-pocket, and highwayman, to penitentiary for twenty-four years. This following in the wake of the twenty years' sentence imposed on Fred Hawkins for burglary, is expected to have a deterring effect on this class of criminals in Winnipeg.

Education Department, Ontario.

ANNUAL EXAMINATIONS, 1907.

COMMERCIAL SPECIALISTS.

STENOGRAPHY—PRACTICE.

Examiners: { J. A. DICKINSON.
R. H. ELDON, B.A.
E. E. C. KILMER, B.A.

NOTE.—*Each candidate must enclose both his shorthand notes and the transcription.*

I.

John Jones, Esq.,
Woodstock, Ont.

Paris, Ont., June 7th, 1907.

Dear Sir :—

We have your esteemed favour of the 25th ult., and in reply would say that we have no further claims against your company, as the bill of March 20th was duly paid April 10th and your account balanced.

Trusting this will be satisfactory, we are

Yours truly,

(1 minute)

Brown and Smith.

II.

Frank Ross, Esq.,
Hamilton, Ont.

Toronto, July 10th, 1907.

Dear Sir :—

We were very glad to receive your favour of several days ago with enclosure as stated, receipt of which has already been acknowledged, and the amount applied to your account in favour of George Reed. From what you say together with what we know from previous information, doubtless things are in a terrible condition. Reed may be a very mean man, but we have felt all along that if circumstances were favourable he would try to do the fair thing. Doubtless we were mistaken. We thank you for the information, and will try to be on our guard.

We hope you will suffer nothing at his hands.

Yours truly,

(2 minutes)

Ingram and Daly.

[OVER]

III.

C. E. Ford,
29 James St.,
London, Ont.,

Simcoe, August 2nd, 1907.

Dear Sir :—

Are you in a position to make me a payment on the note transferred to me by A. Sims? I do not want to bring suit, but am afraid I shall have to do so, unless you show a disposition to meet the obligation.

Yours respectfully,

(1 minute)

Thomas Porter.

IV.

Oath of Allegiance :

Dominion of Canada,	}	I, Albert Miller, of the Township
County of Elgin,		of Malahide, in the County of Elgin,
To Wit :		Gentleman, make oath and say that

I do sincerely promise and swear that

I will be faithful and bear true allegiance to His Majesty King Edward (or reigning Sovereign for the time being) as lawful Sovereign of the United Kingdom of Great Britian and Ireland, and of this Dominion of Canada, dependant on and belonging to the said Kingdom, and that I will defend him to the utmost of my power against all traitorous conspiracies or attempts whatsoever shall be made against his person, crown, and dignity, and that I will do my utmost endeavor to disclose and make known to His Majesty, his heirs or successors, all treason, or traitorous conspiracies and attempts which I shall know to be against His Majesty or any of them, and all this do I swear without any equivocation, mental evasion or secret reservation.

Sworn before me at Aylmer, in
the County of Elgin, this fifth
day of May, A.D. 1907.

(3 minutes)

V.

This indenture, made the ninth day of June, in the year of our Lord, one thousand nine hundred and seven,

Between Fred Gundy of the Town of Barrie, County of Simcoe, Province of Ontario, Butcher, the party of the First Part and William Stevens, of the Town of Barrie, aforesaid, Barber, the party of the Second Part,—

Witnesseth, that in consideration of the Rents, Covenants and Agreements hereinafter reserved and contained

on the part of the said party of the Second Part, his executors, administrators and assigns, to be paid, observed and performed, the said party of the First Part hath leased, and by these presents doth lease unto the said party of the Second Part, his heirs, executors, administrators and assigns :

All that certain parcel or tract of land situate, lying and being in the Town of Barrie, in the County of Simcoe, Province of Ontario, and being more particularly described as lot number three, on the North side of Victoria street in the aforesaid town, and containing by admeasurement one-quarter of an acre, be the same more or less.

(3 minutes)

Education Department, Ontario.

ANNUAL EXAMINATIONS, 1907.

COMMERCIAL SPECIALISTS.

HISTORY OF COMMERCE AND TRANSPORTATION.

Examiners : { J. A. DICKINSON.
R. H. ELTON, B.A.
E. E. C. KILMER, B.A.

1. Give an account of the rise, extent and decline of Phoenician and Carthaginian commerce.

2. "Laid the foundations of what we know as mediæval and modern Europe." How were these foundations laid and by whom?

3. Distinguish between Merchant Guilds and Craft Guilds. How did they affect the times?

4. Give some idea of ancient Rome as a commercial nation. What was the character and purpose of Roman roads?

5. What were the chief trade routes of the middle ages? How did they originate and why were they abandoned?

6. Give a brief account of the great Italian commercial cities of the middle ages. What was the nature of the confederation in Europe to the north of these cities?

7. How was the English East India Company founded? What success did it have? What became of it?

8. What effect did the Navigation Acts of 1651 have on trade? How does England's commercial policy of to-day compare with that of the seventeenth century?

9. What effect did Napoleon's Berlin and Milan decrees have upon the commerce of European countries?

Education Department, Ontario.

ANNUAL EXAMINATIONS, 1907.

COMMERCIAL SPECIALISTS.

BOOK-KEEPING—PRACTICE.

Examiners: { J. A. DICKINSON.
R. H. ELDON, B.A.
E. E. C. KILMER, B.A.

A.

The partnership firm of A, B & Co., wholesale grocers, having obtained a charter of incorporation under the Joint Stock Companies' Letters Patent Act, becomes on July 1, 1907, a Joint Stock Company known as the "Leon Spice Co." (Limited). The authorized capital stock has been fixed by charter at \$50,000 in 500 shares of \$100 each. The members of the partnership firm agree to accept 200 shares of fully paid up stock in the new company in lieu of their interests in the partnership as follows: A. Anson, 100 shares; B. Bond, 60 shares; C. Coe, 40 shares. They also agree with each other and with the other subsequent subscribers for stock, that the excess of the partnership capital, on July 1, 1907, over the par value of such accepted shares, shall be placed in some account to assist in meeting organization and other contingent expenses. 100 shares of the capital stock is to remain in the treasury until it is required for extra working capital. The balance of the capital stock is subscribed for, in equal amounts, by A. Anson, B. Bond, D. Drummer, and E. Student, who accept the same agreeing to pay cash therefor in five equal quarterly instalments of 20% of the par value, the first instalment being paid on the date of issue, July 1, 1907.

The following are the Ledger balances taken from the partnership books on July 1, 1907, with unposted assets and liabilities:

A, B & Co. (Capital A/cs)		\$19212 38	
A, B & Co. (Private A/cs)	\$ 1360 00		Goods
Mdse.	5903 71		on hand
Cash	39 05		\$12000 00
Bank	5208 62		
Discount		123 07	Office
Bills Pay.		1150 00	Furniture
Salaries	2192 00		valued at
Bills Rec.	795 15		cost, less 10
Rent	990 00		per cent.
Expense	426 00		depreciation
Office Furniture	325 50		\$.....
Accounts Rec.	3245 42		
	\$20485 45	\$20485 45	[OVER]

1. Make a statement of Assets and Liabilities for A, B & Co. on July 1, 1907.

2. Make a Journal Entry to balance the partnership books and show the transfer of assets and debts to the Joint Stock Co.

3. Make Journal Entries for the Stock Company's books to show the receipt of the assets and debts of the partnership firm by the company and the issue of fully paid-up stock therefor, also for the issue of the 200 shares sold for cash, and for the unissued stock.

4. Post the above entries to the General or Business Ledger and also to the Stock Ledger.

5. Take off a Trial Balance from the new company's Ledger at this point.

B.

The following is a memo. of the business transactions to be recorded by you, as accountant, in the books of A, B & Co., wholesale grocers, on Saturday June 26th, 1907 :—

Traveller's orders dated 24/6/1907 received to-day and filled as follows :—A. Box, Barrie, 1 Cheese, 60 lbs. at 8 cts. ; 2 bags Dried Apples, 100 lbs at 4 cts. ; $\frac{1}{2}$ chest Pekoe Tea, 60-10 lbs. at 28 cts. ; $\frac{1}{2}$ chest Unc. Japan Tea, 74-10 lbs. at $37\frac{1}{2}$ cts. ; 6 doz. Brooms at \$3.00 ; 6 doz. Brooms at \$2.00 ; A. Box made a cash payment to traveller in full of previous order which the traveller enclosed with the above order. B. Cox, Cobalt, 2 sacks Oatmeal, 100 lbs. at 7 cts. ; 1 case Breakfast Food, \$4.00 ; 1 pail Mustard, 42-2 lbs. at 18 cts. ; 1 gross Lamp Glasses, 12 doz. at 50 cts. ; 1 gross Lantern Globes, 12 doz. at \$1.40 ; 1 tin Roasted Coffee, 25 lbs. at 32 cts. Cash Sales to-day as follows :—3% goods \$14.60 ; 1% goods \$22.10 ; Net goods \$9.48. (Deduct discounts.) Paid week's wages in full as per pay sheet \$60.50, also travelling expenses for the week to D. Drummer \$14.00, and sundry expense items as per Petty Cash Book, \$8.40.

Drew a sight draft on B. Cox to settle amount of to-day's charge and previous balance as per ledger account, less discount as per terms.

NOTE.—The following Ledger A/cs show the standing of customers previous to the receipt of today's orders. The figures to the left of the index column indicate the terms which must

be taken into account when computing discounts on payments. (S) indicates Sugar, which according to the rules of the Grocer's Guild must be recorded separately in the books of all dealers belonging to the Guild. (See terms on Invoice.)

Dr.		A. BOX, (Barrie, Ont.)										Cr.	
June	15	To Goods	10.80	1									
			18.50	s		29	30						

Dr.		B. COX, (Cobalt, Ont.)										Cr.	
June	4	To Goods		3		90	42						
			24.60	1									
			23.67	s		38	27						

6. Design a Travellers' Order Sheet which when filled out may be used as a Journal record of all sales on account and bound as a folio of the Loose Leaf Binder Sales Journal. [This form when filled may be used in (7).]

7. Fill out two of these Travellers' Order Sheets, also the two Invoice forms enclosed, with the above orders, adding a note to one that you are drawing the draft as per memo.

8. Draw the draft in (7) and place the receipt for payment thereon by the Home Bank in Cobalt. Rule a specimen of Bill Journal and show entry made therein when you drew above draft.

9. Rule a cash book with special debit columns for Cash Sales and Bills Receivable, and special credit columns for Discount and Expense, and record therein the cash transactions of the day. Previous balance \$140.60.

10. Post to the above customers' accounts from the three special Journals named, all business transactions recorded therein which affect the accounts.

C.

The following Trial Balance shows the condition of affairs in the books of the Cash & Coyne Manufacturing firm on Dec. 31, 1906 :—

TRIAL BALANCE.—Dec. 31, 1906.

A. Cash Capital A/c		\$22500 00
A. Cash Private A/c	\$ 1650 00	
B. Coyne Capital A/c		20100 00
B. Coyne Private A/c	1500 00	
Cash on hand	40 00	
Cash in Bank	2410 00	
Bills Rec.	760 00	
Bills Pay.		1340 00
Stock, Jan. 1, 1906.	29800 00	
Machinery and Plant	10600 00	
Real Estate	6500 00	
Expense	1080 00	
Purchase A/c. (Invoices Jan. 1 - Dec. 31)	34450 00	
Credit Notes for goods returned and rebates on purchases		1245 00
Sales A/c. (Jan. 1 - Dec. 31)		65690 00
Credit Notes for goods returned by customers	220 00	
Fire Insurance	260 00	
Discount off purchases		325 00
Discount to customers	895 00	
Personal Debtor's A/cs	4500 00	
Personal Creditor's A/cs		1970 00
Office Furniture	360 00	
Wages	11600 00	
Rent (Office Premises)	360 00	
Fuel, Light and Power	1440 00	
Commissions for selling	1060 00	
Travelling Expenses	1440 00	
Freight (Inwards)	450 00	
Freight (Outwards)	160 00	
Royalties	540 00	
Advertising	260 00	
Interest and Bank Charges	135 00	
Stable Expenses	240 00	
Bad Debts	460 00	
	\$113170 00	\$113170 00

NOTE.—Value of Stock on hand, Dec. 31, 1906, \$24800.00.

Value of unearned Insurance, Dec. 31, 1906, \$75.00.

11. Prepare from the above a Manufacturing Account, a Profit and Loss Account, and a Balance Sheet on Dec. 31, 1906. Allow 5% off Accounts Receivable for Bad Debts; 5% for Depreciation on Machinery and Office Furniture. Allow each partner 6% interest on his investment and a salary of \$150.00 per month, drawings of which are already recorded in the Private Accounts.

Education Department, Ontario.

Annual Examinations, 1907.

ART SPECIALIST.

FREEHAND SKETCHING.

Examiners: { S. K. DAVIDSON.
W. H. FRASER, M.A.
A. H. LEAKE.

NOTE.—Use pencil, crayon, charcoal, or brush with ink. Greatest dimension of the drawings should not be less than eight inches.

Figure at Rest.

1. Draw in light and shade the model presented to you.

Figure in Motion.

2. Sketch the same model in the act of using a broom. Draw in outline, or in outline with a suggestion of shade.

Landscape.

3. Sketch in light and shade the view pointed out to you.

Education Department, Ontario.

Annual Examinations, 1907.

ART SPECIALIST.

FREEHAND DRAWING.

Examiners: { S. K. DAVIDSON.
W. H. FRASER, M.A.
A. H. LEAKE.

NOTE.—Candidates may use pencil, crayon, pen and ink, or brush with ink. Questions 1 and 2 must be finished in light and shade.

1. Draw the objects placed before you (greatest dimension of drawing not to be less than eight inches).

2. Illustrate *one* of the following quotations :—

(a) “The little Road says Go :
The little House says Stay,
And oh, it's bonny here at home,
But I must go away.”

OR,

(b) “Hark ! 'tis the twanging horn o'er yonder bridge,
That with its wearisome but needful length
Bestrides the wintry flood, in which the moon
Sees her unwrinkled face reflected bright.”

3. Make a sketch of the interior of a room in parallel perspective. Introduce furniture, pictures, etc. Show horizontal line and centre of vision. Leave all construction lines.

4. How would you teach a class to draw a cylinder from the model ? Two positions. Illustrate your lesson.

Education Department, Ontario.

Annual Examinations, 1907.

ART SPECIALIST.

CLAY MODELLING.

Examiners: { S. K. DAVIDSON.
W. H. FRASER, M.A.
A. H. LEAKE.

NOTE.—*Question 1 must be taken. The candidate may select any two others.*

1. Make an exact copy of the group of fruits or vegetables presented, placing your group on a tile of suitable size and shape.

2. Model a hexagonal prism, a square pyramid, and a Greek cross. Place them on a slab, paying proper attention to proportion and arrangement.

3. Model a relief map of North America indicating only the prominent mountain ranges and rivers.

4. Model *either* a thistle, an oyster shell, or an open pod of peas—the model to be placed on a slab of suitable size and shape.

5. Design a decorative panel, using the acanthus as a motif.

6. Model one of the three casts presented, making an exact copy. The size of the finished model must not be that of the cast but should bear some definite proportion to it. Attach a slip of paper stating the scale you have adopted.

Education Department, Ontario.

Annual Examinations, 1907.

ART SPECIALIST.

COLOUR DRAWING.

Examiners: { S. K. DAVIDSON.
W. H. FRASER, M.A.
A. H. LEAKE.

NOTE.—*Use water colours. Greatest dimension of the drawings should not be less than eight inches.*

Question 1 must be taken. The candidate may select any two others.

1. Paint the flowers submitted.
2. Taking the same plant for a motif, make a decorative panel, using flat tints of colour.
3. Paint the Japanese lantern.
4. Paint a picture, choosing one of the following subjects :—
 - (a) A sunset on lake or river ;
 - (b) A winter landscape ;
 - (c) A summer landscape, with hills, trees, and a stream or small pond.

Education Department, Ontario.

Annual Examinations, 1907.

ART SPECIALIST.

INDUSTRIAL DESIGN.

Examiners: { S. K. DAVIDSON.
W. H. FRASER, M.A.
A. H. LEAKE.

NOTE.—*Only three questions are to be attempted.*

1. Give three examples of Japanese Stencils. Each stencil is to occupy a space of 5" by 2".

2. Design three borders, using animal forms as a motif, each border to have a suggestion of movement. Give six examples of the use of wavy lines to suggest movement.

3. In a space 5" by 3" design a decorative panel suitable for relief carving, using the nasturtium leaf or the daisy as a motif.

4. Design in black and white a geometrical pattern for a horizontal border 5" wide with a repeat of $7\frac{1}{2}$ ". This horizontal border is enclosed by two smaller borders, that at the top is 1" wide, that at the bottom $1\frac{1}{4}$ " wide. These subsidiary borders must consist of straight lines. The width of the whole is $7\frac{1}{4}$ ".

5. Design in black and white an interlacing or scroll pattern, to fill the shaft of a pilaster 4" wide by 18" high.

Education Department, Ontario.

Annual Examinations, 1907.

ART SPECIALIST.

GEOMETRICAL AND MECHANICAL DRAWING.

Examiners: { S. K. DAVIDSON.
W. H. FRASER, M.A.
A. H. LEAKE.

NOTE.—*An option is allowed between questions 1 and 2. Only four questions are to be attempted.*

1. A rectangular box 10 feet long, 5 feet wide and 3 feet high, rests on the ground plane with its ends vanishing to the left at an angle of 60 degrees with the picture plane. The nearest corner is 4 feet to the right and 7 feet within. The lid is open at an angle of 20 degrees with the horizontal plane. Required the perspective representation of the box, and the shadow cast upon the ground when the sun is behind the picture plane, lying in a vertical plane, which makes an angle of 45 degrees to the right with the picture plane, and the rays are inclined at 30 degrees to the ground plane. Eye 5 feet above the ground plane and 12 feet from the picture plane. Scale $\frac{1}{4}$ inch to 1 foot.

2. Project a dodecahedron standing on one of its faces on the horizontal plane with one of the edges of its base parallel to the vertical plane. Intersect it by a cutting plane inclined at an angle of 45 degrees to the horizontal plane and an angle of 60 degrees with the vertical plane. Construct its sectional area on the vertical plane.

3. Sketch in detail the arches of the Doric and Corinthian orders of architecture.

4. Draw the plan of a cube of 5" side. One inch from each edge place the plan of a square slab $\frac{1}{2}$ " thick. Make an isometric drawing of the complete solid. The slabs are to be placed on the three visible faces.

[OVER]

5. (a) Show how to trisect (approximately) any angle other than a right angle.

(b) Show how to draw a line bisecting the angle between two given converging lines when the angular point is inaccessible.

(c) Show how to inscribe in a circle, a triangle, square, pentagon, octagon, decagon, or duodecagon.

(d) Show two methods of inscribing any regular polygon in a given circle.

Education Department, Ontario.

Annual Examinations, 1907.

ART SPECIALIST.

BLACKBOARD DRAWING.

Examiners: { S. K. DAVIDSON.
W. H. FRASER, M.A.
A. H. LEAKE.

NOTE.—*Question 1 must be taken. The Candidate may select any three others.*

1. Make a sketch of the group of objects presented, as large as the space allotted to you will conveniently allow.

2. Illustrate by a sketch or sketches :—

“I love thy rocks and rills,
Thy woods and templed hills.
My heart with rapture thrills
Like that above.”

3. Make a sketch of a horse trotting or a cow grazing.

4. Sketch the Whitewood or Tulip Tree (*Liriodendron Tulipifera*) in full bloom, giving also an enlarged sketch of a single leaf.

5. Make such sketches as you would use in giving a lesson on *one* of the following subjects :—

- (a) Methods of Transportation ;
- (b) Volcanoes ;
- (c) Germination of plants.

Education Department, Ontario.

Annual Examinations, 1907.

ART SPECIALIST.

HISTORY OF ART.

Examiners: { S. K. DAVIDSON.
W. H. FRASER, M.A.
A. H. LEAKE.

NOTE.—*Only seven questions are to be attempted. An option is allowed between questions 1 and 2, and between 4 and 5.*

1. Name the three orders of Greek architecture, and indicate the chief points of resemblance and difference between them, by reference to the shaft of the column, the base, the capital, the frieze and the cornice.

2. Give the approximate dates of the beginning and of the end of the period of Romanesque architecture and of Gothic architecture, respectively. Indicate the chief points of difference between the two styles, their respective advantages and disadvantages, and name at least two buildings as examples of each.

3. Write an outline of the history of (a) Greek sculpture, or (b) Italian sculpture subsequent to 1200 A.D.

4. "In the beginning of the 15th century a new spirit entered into painting in the West." Enlarge and explain this statement by reference to painting and painters in Italy before and after the date mentioned.

5. Give some account of the history of painting in the Netherlands, referring to periods and to painters, with characteristics and approximate dates.

6. Write a biographical note on Leonardo da Vinci, and give some account of him as a painter.

7. When did Fra Angelico flourish? For what is he celebrated? In what relation does his work stand to what preceded and to what followed in the history of Italian art?

[OVER]

8. Write notes on any *five* of the following, indicating their place in the history of art, and giving approximate dates:—
Velasquez, Albert Dürer, Hans Holbein the Younger, Niccolo Pisano, Titian, Masaccio, Cimabue, Donatello.

9. Write explanatory notes on any *three* of the following:—

- (a) Fresco painting;
- (b) The influence of sculpture on painting;
- (c) Mosaics;
- (d) The introduction of perspective into modern painting;
- (e) The painting of the Catacombs.

Education Department, Ontario.

December Examinations, 1907.

COUNTY MODEL SCHOOLS.

Methods in Arithmetic and Penmanship.

Examiners: $\left\{ \begin{array}{l} \text{J. DEARNESS, M.A.} \\ \text{S. B. SINCLAIR, PH.D.} \\ \text{J. WAUGH, D.PÆD.} \end{array} \right.$

1. To a class acquainted with the numbers 1-12 state in order the steps you would take in teaching the 'teens (13-19).

2. How would you teach the multiplication table?

3. "The important thing here (i.e. in Reduction) is that the pupils should have clear notions of the standard units and of their relations."

How would you proceed to give clear notions of the standard units of Avoirdupois Weight and Surface Measure?

4. A class has learned the process of adding fractions but not the principles involved. Show how you would teach this class that in preparing to add fractions we express all the fractions in terms of a common unit of measurement. Use $\frac{2}{3} + \frac{4}{5} + \frac{7}{10}$ as an example.

5. Give directions to a writing class respecting:—

- (a) posture of body;
- (b) position of paper;
- (c) holding of pen.

6. Give spacing directions and appropriate movement exercises for writing *each* of the following letters:—small *l*, *t*, *x*; capital *D*, *J*.

Education Department, Ontario.

December Examinations, 1907.

COUNTY MODEL SCHOOLS.

Methods in Literature and Spelling.

Examiners: { J. DEARNESS, M.A.
S. B. SINCLAIR, PH.D.
J. WAUGH, D.PÆD.

1. A cloud lay cradled near the setting sun ;
A gleam of crimson tinged its braided snow ;
Long had I watched the glory moving on,
O'er the still radiance of the lake below.
Tranquil its spirit seemed, and floated slow,—
Even in its very motion there was rest ;
While every breath of eve that chanced to blow
Wafted the traveller to the beauteous West :—
Emblem, methought, of the departed soul,
To whose white robe the gleam of bliss is given ;
And, by the breath of Mercy made to roll
Right onward to the golden gates of Heaven ;
Where, to the eye of faith, it peaceful lies,
And tells to man his glorious destinies.

(a) What suggestions would you give a class in Form IV. as an introduction to a study of this poem ?

(b) Show in detail how you would conduct the lesson proper so as to bring your class to a full understanding of its spirit and significance.

(c) Show how you would lead an advanced class to a realization of its special poetical characteristics.

2. "Think, then, how much we owe to these plants which lived and died so long ago ! If they had been able to reason, perhaps they might have said that they did not seem to be of much use in the world. They had no pretty flowers, and there was no one to admire their beautiful green foliage except a few croaking reptiles, and little crickets and grasshoppers, and they lived and died all on one spot, generation after generation, without seeming to do much good to anything or anybody. Then they were covered up and put out of sight, and down in the dark earth they were pressed all out of shape, and lost their beauty and became only black, hard coal. There they lay for centuries and centuries, and thousands and thousands of years, and still no one seemed to want them."

Give a scheme of your lesson on this passage, keeping in view the ethical ideas suggested by the reading of it.

3. "In the teaching of spelling the spelling book is merely supplementary." (a) What special purposes does it serve ? (b) What other means of teaching spelling has the teacher at hand ?

4. Discuss the advantages of the various methods of checking and correcting class exercises in dictation.

Education Department, Ontario.

December Examinations, 1907.

COUNTY MODEL SCHOOLS.

School Law and Regulations.

Examiners: { J. DEARNESS, M.A.
S. B. SINCLAIR, PH.D.
J. WAUGH, D.PÆD.

1. What are the requirements of the School Law and Regulations in relation to :—

- (a) Religious instruction in the public schools ;
- (b) Heating and ventilation of public schools.

2. Point out the teacher's legal powers and duties in relation to :—

- (a) Debarring from attendance at school a pupil suspected of having been exposed to an infectious disease ;
- (b) Administering punishment ;
- (c) Suspending a pupil.

3. What is the law in relation to the payment of the salary of a teacher who has taught for only a portion of the year ?

Education Department, Ontario.

December Examinations, 1907.

COUNTY MODEL SCHOOLS.

Science of Education.

Examiners: { J. DEARNESS, M.A.
S. B. SINCLAIR, PH.D.
J. WAUGH, D.PÆD.

1. (a) Point out three important differences between children of seven and of fourteen years of age.

(b) Show definitely how this knowledge will be of value in the selection of the subject matter to be studied, and the methods of teaching to be adopted.

2. A person enters a dark room to get a lead pencil, which, with a number of other articles, lies on a table in the room. In the darkness he comes in contact with a sharp corner of the table. After a brief search he finds the pencil.

(a) Using the foregoing experience as an illustration, explain the meaning (without formal definition) of each of the following terms:—sensation, perception, imagination, apperception, voluntary attention.

(b) Using the same illustration, show that all of these (sensation, perception, etc.) occur at the same time, that is, are found united as different phases in the experience of one particular moment.

(c) Point out the educational bearing of the truth stated in (b).

3. (a) What can you do to train the reasoning powers of your pupils?

(b) How does Thought differ from Imagination?

4. Explain the meaning and give a definite schoolroom application of each of the following:—

(a) "The Sensations of which we are conscious depend upon Attention."

(b) "The great secret of interest is adaptation."

(c) "Constructive Imagination depends upon Reproductive Imagination."

Education Department, Ontario.

December Examinations, 1907.

COUNTY MODEL SCHOOLS.

Methods in History and Geography.

Examiners: { J. DEARNESS, M.A.
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J. WAUGH, D.PÆD.

1. Show how you would apply the Method of Nature Study (i.e. direct observation) to the teaching of Geography.
2. Explain briefly the purpose and method of use of each of the teaching auxiliaries, exclusive of the atlas and text books, which you would employ in teaching Geography.
3. Give an outline of a lesson on *either* "The Gulf Stream" *or* "The Niagara River" for a class in Form III.
4. "The aim of education is to fit the individual for his place in society."
How may the study of History be made to contribute directly to this end?
5. Outline a review lesson on "The Fusion of the Different Peoples into the British Nation" *or* on "The Union of the Provinces into the Dominion of Canada."
6. How would you call into use your knowledge of the "laws of memory" in teaching a history lesson?

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COUNTY MODEL SCHOOLS.

Methods in Grammar and Composition.

Examiners: { J. DEARNESS, M.A.
S. B. SINCLAIR, PH.D.
J. WAUGH, D.PÆD.

1. "The selection of material and methods will depend upon the aims which the teacher has in view in teaching any particular subject."

(a) What do you consider to be the aims or purposes to be kept in view in teaching Grammar?

(b) State briefly, with illustrations, ways in which you expect to attain these in a Fourth Form.

2. Outline your plan of teaching a Fourth Form class to use correctly the words *rise*, *raise*, and their inflections.

3. Discuss systematic story-telling under the following heads:—

(a) The advantages of story-telling;

(b) The selection of material and the method of treatment in a First Form.

4. Write notes on the relation between thought and language. Illustrate by your treatment of Composition in a Third Form.

5. Give the details of a review lesson on the uses of the comma.

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COUNTY MODEL SCHOOLS.

School Management.

Examiners: { J. DEARNESS, M.A.
S. B. SINCLAIR, PH.D.
J. WAUGH, D.PÆD.

1. State as fully as you can within the limits of a page of foolscap, how your studies in the Science of Education should be of service to you in School Management.
2. Discuss the following means of moral training :—
 - (a) The personality of the teacher ;
 - (b) Force of habit ;
 - (c) The ethical value of school studies ;
 - (d) Systematic instruction in ethics.
3. (a) What is your ideal of “ good order ” in a school room ?
(b) In what ways would you seek to attain this ideal ?
4. What valid objections may be urged against promising a class a medal as an incentive to study ?
5. Submit a form of time-table for a rural school having classes in Part I., Part II., Junior II., Senior II., III., and IV. Enter the headings and sidings, and the day's work for Senior II. only, distinguishing seat-work from recitations.

Schedule of Marks

COUNTY MODEL SCHOOL EXAMINATIONS

DECEMBER, 1907

Methods in Literature and Spelling:—

(1) 10 + 30 + 10 ; (2) 20 ; (3) 5 + 10 ; (4) 15. ... Total 100

Methods in History and Geography:—

(1) 15 ; (2) 15 ; (3) 20 ; (4) 15 ; (5) 20 ; (6) 15...Total 100

School Management:—

(1) 18 ; (2) 28 ; (3) 20 ; (4) 12 ; (5) 22. Total 100

Methods in Arithmetic and Penmanship:—

(1) 18 ; (2) 18 ; (3) 18 ; (4) 18 ; (5) 13 ; (6) 15. Total 100

School Law and Regulations:—

(1) 20 ; (2) 20 ; (3) 10. Total 50

Science of Education:—

Twenty-five marks for each question Total 100

Methods in Grammar and Composition:—

(1) 25 ; (2) 20 ; (3) 20 ; (4) 20 ; (5) 15. Total 100

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